**III. "CAST OFF" RATES**

**A. Overview**

Mr. Kruszyna presented a comprehensive and well-documented cost of service analysis for the purpose of "establishing the 'cast off' rates necessary for the implementation of the PCM plan described in the testimony of Ms. Zink and Dr. Gordon." Exh. BG-5, p. 2. Mr. Kruszyna applied a traditional cost of service analysis applying a test year ending December 31, 2000. Mr. Kruszyna made a variety of typical adjustments for "known and measurable" items in order to normalize revenues or develop appropriate costs. Id., at 3. Mr. Kruszyna's cost of service analysis followed traditional, Department-approved techniques that reflect the specific circumstances of the Company.

As described in Section II, supra, the PCM Plan not only provides strong efficiency incentives for the Company on a going forward basis, but also affords the Company the opportunity to recover merger-related costs consistent with Department precedent. This fundamental principle is a cornerstone to the Company's willingness to adopt the PCM and forego the right to file base rate cases during its term. Thus, Mr. Kruszyna made a number of adjustments to present the cost of service on a "stand alone" basis. Id.; Tr. 4, p. 509. Specifically, as Mr. Kruszyna explained, the "stand alone" basis cost of service does not reflect items associated with the merger of the Company's parent with Energy East. Id. Thus, the use of the "stand alone" cost of service establishes a "fair starting point for the PCM plan cast off rates." Tr. 4, p. 511. See also Section II.E, supra.

The Department should recognize that the Company has made appropriate adjustments for merger-related items on a comprehensive and consistent basis, including adjustments that result in decreases to the cost of service assumed for cast off rates. See Tr. 9, p. 1069 et seq.;

Exh. BG-7, Sch. JJK-16.[38] The Company submits that the logic of these adjustments must be followed consistently; failure to reflect such factors will understate the cost of service and result in confiscatory rates. Boston Edison Co. v. Department of Public Utilities, 375 Mass. 1, 10 (1978) citing Boston Gas Co. v. Department of Public Utilities, 368 Mass. 780, 790 (1975); see Section II, supra; see also Boston Gas Co. v. Department of Public Utilities, 367 Mass. 92, 104-105 (1975).

Mr. Kruszyna developed a "stand alone" cost of service by applying essentially two techniques. First, he removed costs and related items associated with the Energy East merger. For example, Mr. Kruszyna removed costs triggered by the change of control, such as the $2,171,000 necessary to fund the Company's Supplemental Executive Retirement Program ("SERP"). Exh. BG-5, p. 23; Exh. BG-6, Sched. JJK-16. Second, he adjusted actual Company expenses as if the merger had not been completed and, instead, the Company had continued with its operations through the end of the test year. Examples of this type of adjustment include the normalization of the salaries of two executives who left the Company after the merger and the inclusion of shareholder expenses including those related to an annual meeting. Exh. BG-5, pp. 11, 23; Exh. BG-6, Sched.s JJK-8, JJK-30.

As will be described in detail, Mr. Kruszyna was rigorous and consistent in his application of these adjustments in developing the PCM cast off rates.[39] Accordingly, for the

[38] Importantly, the Company made no specific adjustment for the $66,263,858 million acquisition premium or goodwill as this had been booked as a below-the-line item and, therefore, was not reflected in the cost of service schedule. Tr. 9, p. 1071; Exh. AG 10-12 The use of the "stand alone" cast off rates and the Company's achievement of savings from that level of costs represents the only opportunity for the Company to recover merger-related costs.

[39] See Exh. BG-5, pp. 4-5 for a description of Mr. Kruszyna's analysis and an overview of the various schedules provided with his testimony.

reasons described in Section II, supra, and in Mr. Kruszyna's evidentiary presentation, the Department should accept the Company's cast off rate analysis.

### B. Merger-Related Adjustments

#### 1. Income Taxes

Schedule JJK-5 that accompanies Mr. Kruszyna's testimony describes a significant adjustment made for income taxes necessary for the development of proper cast off rates. This adjustment demonstrates the consistent and balanced nature of the Company's analysis. Mr. Kruszyna explained that, due to the merger and the subsequent filing of consolidated federal tax returns, the effective tax rate for the Company increased from 34% to 35%. Exh. BG-5, p. 8. Mr. Kruszyna also explained that "in order to be consistent. . . for the establishment of cast off rates," a 1% reduction was necessary to the federal tax rate. Id. Thus, the Company applied the **lower**, pre-merger tax rate in its cast off rates. Id.; Exh. BG-6, Sched. JJK-5.[40] No party has challenged this adjustment. Accordingly, the Department should accept the Company's proposed tax rate adjustment in establishing appropriate cast off rates.

#### 2. Miscellaneous General Expenses

Mr. Kruszyna made a number of adjustments to Miscellaneous General Expenses to remove merger-related costs as well as certain non-recurring and non-utility expenses. Exh. BG-5, p. 16; Exh. BG-6, Sched. JJK-16. Mr. Kruszyna explained that many of the adjustments reflected on Schedule JJK-16 were made in order to comply with Department precedent. For example, bank fees associated with debt issuances and certain "Y2K" expenses were removed as

---

[40] The Company proposes, however, that the currently effective statutory rate of 35% be employed in calculating any necessary income tax effects. The Company submits that its cost of service adjustment is consistent for application in the PCM and that the use of the statutory rate is appropriate for other purposes, as the Company should be neither enriched nor penalized by tax rate changes that are outside its control. Tr. 13, p. 1445.

non-recurring expenses. See Exh. BG-5, p. 17; see also Berkshire Gas, D.P.U. 92-210, p. 115. A number of costs related to administrative charges from Berkshire Energy Resources were also removed from the cost analysis, including costs associated with the corporate restructuring approved by the Department in docket D.T.E. 98-61/87 and fees for the dividend reinvestment plan. Exh. BG-5, pp. 16-17; Exh. BG-6, Sched. JJK-16.

In addition, Mr. Kruszyna removed from his cost of service schedules a number of items associated with the merger, including investment banker fees and costs associated with the funding of change of control obligations. Tr. 9, p. 1070; Exh. BG-6, Sched. JJK-16.[41] As described, the Company removed from its cost of service analysis the amounts incurred during the test year in connection with the obligation to fund the SERP due to the change in control. See Tr. 9, p. 1070; Exh. BG-5, pp. 22-23; Exh. BG-6, Sched. JJK-16. The Company did, however, include within its cast off rates an appropriate, independently established level of SERP funding that would have been incurred had the merger not been completed. See Section III. C. 3. g., infra.

No party has challenged the Company's adjustments in Schedule JJK-16. Accordingly, the Department should accept the Company's Miscellaneous General Expenses calculation for the purpose of developing cast off rates.[42]

---

[41] Line 12 of Schedule JJK-16 includes an entry that was made in anticipation of the merger with respect to a previously approved consulting agreement for Mr. Joseph Kelley, the former chairman and president of the Company. The reserve was removed for the purposes of establishing cast off rates, but the expense analysis reflected the amount of the underlying consulting payments. Tr. 9, p. 1070; see Section III. C. 3, f., infra.

[42] As noted in DTE-RR-36, the Company inadvertently omitted $48,670 of Energy East administrative expense from line 1 of Schedule JJK-16. This will be reflected in the Company's revised cost of service schedules attached to the reply brief.

### 3. **Shareholders Expense**

The Company proposed an adjustment to Shareholders Expenses in order to reflect appropriately the Company's costs on a stand alone basis. Due to the timing of the merger, no annual reports and proxies were prepared, filed or mailed and no annual meeting was held during the test year. Exh. BG-5, p. 23. Mr. Kruszyna made a conservative pro forma adjustment by applying the previous year's costs for these items. Id. These costs were not increased even though inflation had been experienced or projected between 1999, the last time actual costs were incurred in these categories, and the rate year. Id.; see e.g., Exh. DOER 1-28; Exh. BG-6, Sched. JJK-36.[43] Failure to accept this adjustment would understate the true cost of service of the Company on a stand alone basis.

Accordingly, the Department should accept the Company's adjustment for Shareholders Expenses in its cast off rates.[44]

### 4. **Conclusion – Merger-Related Adjustments**

The Company presented a complete, well-documented and balanced analysis that removes the effect of the merger and presents a test year cost of service on a stand alone basis. This effort reflects Department precedent and, given the structure of the PCM, affords the Company an opportunity to recover the costs incurred to complete the beneficial merger with Energy East. Accordingly, the Department should accept the Company's merger-related adjustments within its cost of service analysis for establishing cast off rates.

---

[43] The Company allocated appropriate levels of these costs to non-utility functions. Exh. BG-5, pp. 23-24.

[44] It is important to note that the Company's cast off rate analysis does not include any expenses for Energy East shareholder matters or annual meetings. The Company is now allocated a portion of such costs through Management Services Agreements. Exh. AG 1-26.

## C. <u>Traditional Cost of Service Analysis</u>

### 1. <u>Rate Base</u>

#### a. <u>Overview</u>

The Company has made substantial plant investments since its last base rate proceeding. The Department generally includes the total plant investment (less accumulated depreciation) that is prudently incurred, and used and useful in providing service to ratepayers, in a utility's rate base. <u>See</u> <u>Western Massachusetts Electric Company</u>, D.P.U. 85-270, pp. 20-27, 60-66 (1986). The Department may review the prudence of particular investments, based upon what the utility knew or should have known at the time the investment was committed. <u>Attorney General v. Department of Public Utilities</u>, 390 Mass. 208, 229 (1983).

The Company presented substantial evidence demonstrating that its plant additions were prudently incurred and used and useful and, therefore, should be included in rate base. <u>See</u>, <u>e.g.</u> Exh. BG-1, pp. 10-12; Exh. BG-22, pp. 8-9; Exh. AG 12-17; Exh. AG 12-18; Exh. BG-5, pp. 4-5. Exhibit BG-6, Schedule JJK-3 shows the computation of Berkshire's rate base.

The Attorney General challenged the Company's rate base in arguments related to the Company's new LNG plant in Whately, the portable LNG facility maintained and operated in the town of Greenfield, the allocation of costs of certain propane storage facilities, and cash working capital. AG In. Br., pp. 20-25. The Attorney General's arguments disregard substantial Department precedent with respect to both the Company's resource plan and the need for the LNG facility and are based upon factual error and the Attorney General's lack of familiarity with the Company's distribution system and resource plan.[45]

---

[45] The Attorney General's witness, Mr. Chernick, demonstrated on cross-examination a serious lack of familiarity with certain of the Company's critical resources. Tr. 17, pp. 1923-1924. In fact, Mr. Chernick admitted that he did not review the evidentiary record in the LNG facility case

### b. __Whately LNG Plant__

As described by Mr. Allessio, one of the principal factors in terms of the Company's need for rate relief was the necessary construction of its new LNG storage and vaporization facility. The facility has been the subject of substantial prior Department review and approval.

First, the Department considered the need for the LNG facility and its contribution to a reliable and least cost resource plan in the review of the Company's most recent forecast and supply plan in docket D.T.E. 98-99 (August 27, 1999). The Department found that the need for the LNG facility was properly evaluated pursuant to the application of financial analysis tools, network analysis models and expert consultants. __Berkshire Gas__, D.T.E. 98-99, p. 44. The Department found that these analyses resulted in the "identification of a resource that would contribute to a least-cost supply plan." Importantly, this finding was made based upon a comprehensive review of the Company's send out forecast, design requirements and available resources (including the resources that the Attorney General suggests in brief are somehow responsible for the maintenance of "excess" capacity). __Cf__. __Berkshire Gas__, D.T.E. 98-99, pp. 26-30; AG In. Br., pp. 21-23; Exh. BG-27.

Second, the construction and operation of the facility were reviewed and approved by the Department and the Siting Board in docket D.T.E. 99-17/EFSB 99-2 (September 13, 1999). That order found that an additional energy resource was **__necessary__** to maintain reliability in the 1999/2000 split year (i.e., essentially **__immediately__**), that the LNG facility alternative was determined to be preferable to a distribution pipeline facility alternative, and that the Company's

---

where, among other issues, the Company's existing resources and need for a new energy resource were considered. Tr. 17, p. 1941. He also was not familiar with the Company's rights pursuant to the so-called Pittsfield Generating contract whereby the Company has secured substantial peak capacity without incurring any demand charges. Exh. BG-27, pp. 65, 75. Even Mr. Chernick acknowledged the benefits of such an assignment during his cross-examination.

preferred site resulted in a project that provides "a necessary energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost." Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 87.[46] As described in detail below, the Attorney General's arguments with respect to excess capacity are wholly inconsistent with Department rulings regarding the Company's resource plan that found that the facility contributed to a "least cost" plan.

Third, the Department approved the necessary financing of the plant in Berkshire Gas Company, D.T.E. 00-36 (2000). This financing is appropriately reflected in the Company's cost of capital. Section III. C. 5., infra.

The Company submits that, given the Department's extensive findings in the recent forecast and supply plan proceeding and the Company's compliance with the comprehensive decision of the Department and Siting Board in terms of the construction and operation of the plant the plant should be included in rate base as a matter of law. The "used and useful" standard for evaluating rate base "generally requires that a utility plant must be in commercial operation and providing net benefits to customers in order for expenses associated with it to be included in rate base." Town of Hingham v. Department of Telecommunications and Energy, 433 Mass. 198, 202 (2001); New England Tel. & Tel. Co. v. Department of Public Utilities, 360 Mass. 443, 450 (1971). The Department has held that the "used and useful standard involves an evaluation

---

Tr. 17, p. 1941.

[46] The Department and Siting Board determined that the facility was needed to address pressure reliability concerns during both peak and non-peak periods. Berkshire Gas, D.T.E. 99-17, EFSB 99-2, pp. 11-15. The order also recognized that the plant had supply benefits for customers, a point recognized in the Company's proposed rate treatment of the plant. See Section IV, infra. Id. at 15, n. 14. Berkshire believes that its proposed rate treatment appropriately reflects the basis for constructing the plant, the fact that construction was deferred until the last possible moment, and the supply opportunities now available by reason of the construction of the plant. See Section IV, infra.

of the investment in a plant at the time it is placed in service and rate treatment is requested." Western Massachusetts Electric Company, D.P.U. 85-270, pp. 25-27. (1986); Massachusetts-American Water Company, D.P.U. 95-118 (1996). As described, Berkshire invested in the new LNG plant at a time when the Department had determined an immediate and urgent need for the facility. The Attorney General has presented no evidence of any change in circumstances from the factors considered in D.T.E. 98-99 and D.T.E. 95-17/EFSB 99-2. Accordingly, the Department should summarily reject the Attorney General's arguments.

The evidentiary record in this proceeding also confirms that the LNG facility remains a prudent investment that is used and useful for providing reliable service. As a preliminary matter, Mr. Allessio described the extensive efforts applied by the Company to defer the construction solution to a long identified reliability concern. Exh. BG-1, p. 11. The Company's efforts included load management, targeted conservation programs and creative engineering applications. These efforts substantially delayed the need for the plant for may years, thereby securing substantial costs savings. Id.; Exh. AG 12-18. Ms. Zink's testimony also described the bases for adding the plant and innovative design approaches that helped to reduce costs. Exh. BG-22, p. 8. For example, storage capacity is designed to track demand through the construction of additional tanks, thereby reducing the "lumpiness" of the plant investment. Exhibit AG 12-17 contains a portion of the analysis submitted with the petitions to the Department and Siting Board for authority to construct and operate the plant. The analysis demonstrated that the plant was needed for pressure maintenance and that the plant was the preferred alternative; indeed, the analysis showed that the net present value ("NPV") of the LNG project approach was approximately 36% of the practical facility alternative, that would have involved construction of lengthy pipeline facilities and the procurement of substantial additional upstream capacity resources for delivery to the Company's Greenfield Division. Id.; see also Berkshire Gas, D.T.E. 99-17/EFSB 99-7, pp. 28-30.

The Attorney General argues that the LNG plant should be excluded from rate base by relying upon erroneous factual interpretations and by turning a substantial flexibility benefit into an argument that the LNG plant was somehow not necessary. These arguments are wholly contrary to the substantial financial, engineering and technical analysis presented to and relied upon by the Department and Siting Board and summarized in the Company's evidentiary presentation. Moreover, these arguments do not reflect the actual application and operation of the LNG facility.

The Attorney General begins with a strained reading of the evidentiary record in arguing that the LNG facility was not primarily pursued in order to maintain reliable operating pressures. AG In. Br., pp. 20-21. The Attorney General must disregard the substantial evidence and specific findings of the Department and Siting Board. Finally, as described, the Attorney General attempts to turn an ancillary flexibility benefit of the LNG plant into the Company's primary motivation for the construction of the plant.

It is helpful to review Berkshire's actual planning analysis. Berkshire presented the text from the analysis that accompanied its initial petition to the Department and Siting Board in Exhibit AG 12-17. Section 3 of the analysis summarized the Company's determination that the need for a new energy resource was "immediate and substantial." This determination was accepted by the Department where it found that the Company's Greenfield Division distribution system was not adequate for **system pressure maintenance**. Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 17.

In response to the ultimately accepted need determination, the Company presented a comprehensive array of potential project alternatives, including i) the construction of the LNG facility, ii) the construction of approximately eleven (11) miles of pipeline (with additional pipeline required in later years) together with the procurement of significant "upstream" capacity and iii) the construction of slightly less pipeline with a new liquid propane facility as well as the procurement of upstream capacity.[47] Berkshire determined that both the LNG facility and the pipeline alternative would satisfy the identified distribution pressure need.

Berkshire next evaluated these project alternatives in terms of cost, environmental impact and reliability. As part of the cost and reliability analysis, Berkshire was pleased to note that the LNG facility provided several operational flexibility benefits or opportunities. First, unlike the pipe alternative, an LNG facility provided a new, separate supply source in the service area. Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 23. Also, the LNG facility might provide for flexibility in terms of pursuing the release of the Company's "upstream" interstate pipeline capacity. Id. Thus, the cost of the facility could be offset by reduced upstream capacity costs.

The Attorney General turns these benefits upside down and asserts that the supply features were the primary motivating factor in terms of the construction of the LNG facility. Accepting this argument would penalize creative and aggressive resource planning. The

[47] The Attorney General's initial brief suggests that the Company somehow did not present a pipeline alternative in its initial filing. AG In. Br., p. 24, n. 15. As shown, this is simply not accurate. The Company did respond to a request of the Department and Siting Board to evaluate an alternative involving the contractual and construction changes necessary to cause Tennessee Gas Pipeline Company to increase delivery pressures. This alternative was not practical based upon timing and given that such alternative would only cost approximately ten percent (10%) less than the Company's pipeline alternative, which, in turn, was found to cost nearly three times the cost of the LNG facility. For these reasons such option was rejected by the Company, the Department, and the Siting Board. Berkshire Gas, D.T.E. 99-17 / EFSB 99-2, pp. 22, 28-30; Exh. AG 12-17. Accordingly, the Attorney General's assertion that the Department and Siting Board found this pipeline alternative to be the "most economic alternative" (AG In. Br., p. 24) is

Attorney General then attempts to sustain this backward view through several additional strained and erroneous interpretations. First, the Attorney General ignores the Department's and Siting Board's findings with respect to the potential use of additional compression facilities or the continued use of a temporary LNG facility without any LNG storage capacity. AG In. Br., pp. 24-25. The Department's and Siting Board's decision explains that the Company had considered and rejected the use of a second compressor due to a wide range of engineering problems. Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 19, n. 18. The Department and Siting Board accepted these conclusions and rejected compression facilities as a practical alternative. Id.[48]

The Attorney General next conveniently ignores the substantial analysis and findings with respect to the reliability concerns associated with the lack of on-site LNG storage at the Greenfield portable LNG facility. See Exh. AG 12-17, pp. 3-9; Berkshire Gas, D.T.E. 99-17/EFSB 99-2, pp. 12-14 (the Department and Siting Board were particularly troubled by the lack of LNG storage capacity and found that LNG was "more frequently 'unavailable' than available" in Greenfield).

The evidentiary record and the comprehensive findings of the Department and the Siting Board convincingly demonstrate that the LNG facility is needed for pressure maintenance purposes. Moreover, the Company has developed an appropriate and flexible resource plan that provides for reliable service on a least cost basis. The Company has proposed an appropriate and

---

also wrong.

[48] The Attorney General criticizes the lack of "economic" analyses for these options. AG In. Br., p. 24. The Company, similar to the Department and the Siting Board, appropriately never conducted such analysis simply because such option did not address the identified need. Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 19, n. 18. Therefore, its cost was wholly irrelevant. Thus, rather than being a flaw in the Company's analytical process as the Attorney General appears to suggest, this fact demonstrates the logical progression of the Company's planning process.

balanced rate treatment that reflects the primary purpose of the LNG facility as well as its ancillary benefits. See Section IV, infra. The Company's rate treatment is also based upon actual Company dispatch.

In sum, the Company's Whately LNG facility, the first new LNG facility constructed in the Commonwealth in many years, is evidence of the Company's aggressive least cost planning efforts. Customers will benefit from this planning decision for many years. The plant was prudently developed, is used and useful and is providing substantial benefits for customers. Accordingly, the Department should accept the Company's inclusion of costs of the plant within rate base.

### c. Greenfield Portable LNG Facility

The Attorney General argues that the portable LNG vaporizer located in the Greenfield Division and used for off-truck LNG vaporization should be removed from rate base. AG In. Br., p. 25. The Attorney General argues that such exclusion is proper merely because the equipment is for sale. Id. In fact, the equipment remains useful, particularly in light of the fact that the Whately plant is new or "immature" and it is therefore prudent to maintain the Greenfield equipment. Moreover, such treatment is consistent with the Department's treatment of inactive services in Berkshire Gas, D.P.U. 92-210, pp. 25-26. In that decision, the Department rejected the Attorney General's arguments to remove inactive services from the rate base because such services could be reactivated. Id. The portable LNG facility is still maintained by the Company, may never be sold and could be reactivated. Accordingly, the Department should reject the Attorney General's arguments with respect to the Greenfield LNG vaporizer.

### d. Allocation of Propane Plant

Berkshire Gas has long maintained certain propane storage tanks that have historically been employed for two purposes. First, the utility operation of the Company employs the tanks to store L.P. for peaking purposes on the utility system. Second, the tanks have been employed pursuant to the retail propane operation formally conducted within a division of the Company. Since the corporate reorganization approved by the Department in D.T.E. 98-61/87, these services have been provided by Propane. Ms. Zink explained that despite this dual usage, utility customers' needs have first priority to use the tanks for utility needs. Tr. 16, p. 1859.

The propane storage tanks are old and, in several cases, fully depreciated. Exh. BG-7, Supp. Sched. NU-E. Several tanks were constructed in the mid-1950's and the most recent tank was added in 1981. Id.

The Company has not sold or transferred the tanks given their continuing need for reliability purposes, old age, substantial depreciation, and the fact that, consistent with Department precedent, a substantial portion of the costs have been allocated to the non-utility operation. Berkshire proposed to charge Propane a throughput charge of $.01 per gallon for use of the storage facilities ($59,307). Exh. BG-5, p. 14; Exh.BG-8, p. 12. The fee was a proxy for Propane's share of the tanks (total cost or $63,295 less 5% utility usage resulting in a net cost of $60,130). Exh. BG-8, p. 13. Given that the charge was essentially equal to the fully allocated cost of the tanks, no further allocation was necessary. Id.

The Attorney General raises a creative but misleading adjustment with respect to the propane tanks. AG In. Br., p. 26 The Attorney General suggests that even though the tanks were not transferred, any allocation of tank costs needs to be based upon the Department's standards for asset sales. Id. at 27; 220 C.M.R. 12.04(1). The standards of conduct provide that the sales to affiliates be priced at the higher of market value or net book value. Id. The Attorney General ignores the fact that it is the Department that determines market value pursuant to 220 C.M.R. 12.04(1).

The Attorney General, without any engineering basis or asset specific appraisals, determines that these tanks have a market value of 287 percent of book value. AG In. Br., pp. 26-27. The Attorney General conjures up this valuation based upon the allocation of goodwill from the merger. Cf. AG-RR-31; AG-RR-32. The Attorney General fails to explain how goodwill of the Company, that reflects its overall value as a going concern (i.e. incorporating future profits), equates to the market value of a particular asset. In fact, even assuming a valid starting point for this analysis, the Attorney General does not address the fact that goodwill for the Company was not assigned based upon any appraisal because of the application of net book valuation as the Company was a regulated utility. AG-RR-32. Quite frankly, extremely old, fully depreciated propane tanks are likely to have little market value, particularly if the transferee would only be entitled to be "second in line" in terms of operational priority. Again, the Attorney General has presented no evidence to justify his argument that all assets should be valued in the same relation overall to book value to goodwill. In addition, the Attorney General has offered no specific analysis of the tanks to justify the valuation. Given the age of the tanks and the fact that the retail propane operation maintains secondary priority to their usage, the Attorney General's creative valuation adjustment can not be maintained.[49]

The Company believes that allocating 95% of the costs of older assets for second priority service to Propane is fair and, indeed, generous to utility customers and certainly consistent with

---

[49] The Attorney General's efforts to inflate the rate base adjustment based upon his flawed theory must also be rejected as it would result that the tanks would be "depreciated" in excess of their book value. AG In. Br., p. 27.

past precedent. The tanks perform a valuable service to utility customers and such customers should support a portion of the costs of the tanks. Accordingly, the Department should approve the allocation of 95% of tank costs to Propane.

### e. Cash Working Capital

The Company has included in its rate base a cash working capital total of $1,762,260. See Exh. BG-6, Scheds. JJK-3, 4. Inclusion of this expense is appropriate, as the Company requires working capital for its operating costs because of the lag time between the Company's payment for such expenses and the customer's payment for services. Berkshire Gas, D.P.U. 92-210, p. 58; see also Exh. BG-5 p. 7. In arriving at this figure, the Company calculated its Operations and Maintenance Expense for the test year, as adjusted, and then applied the so-called "45-day convention." See Exh. BG-5, p. 7.[50] Importantly, in the Company's last rate case, D.P.U. 92-210, p. 58, the Department found that the Company's application of the 45-day convention was appropriate in calculating working capital. While the Department has emphasized its concern with the 45-day convention as a measurement for cash working capital, the Company demonstrated that, in this case, it remains wholly appropriate. See Fitchburg Gas, D.T.E. 99-118, pp. 29-31; Boston Gas, D.T.E. 96-50, p. 27. The Department has ruled that where there is no evidence that alternative lag times are reasonable estimates of the actual lag times between payment of expenses and receipt of revenues, a utility must rely on the 45-day convention. See Fitchburg Gas, 99-118, p. 30. The Department directed Fitchburg to either perform a lead-lag study or "undertake a reasonable, cost-effective alternative to a lead-lag study in order to address the continued validity of the 45-day convention." Id. at 30, n. 23.

[50] The Attorney General's Initial Brief erroneously states that the Company performed a lead/lag analysis for purposes of base rates. AG In. Br., p. 27

In the present case, the Company fully addressed the Department's directives in the Fitchburg decision. Specifically, the Company performed a comprehensive analysis of the cost-effectiveness of the continuing application of the 45-day convention for rate base. See Exh. BG-5, p. 7. As an initial matter, the Company solicited and received bids from several consultants to prepare a lead-lag study that indicated that the cost of merely preparing a full study would range from $30,000 to $40,000. Id.; Exh. AG 3-10. At the same time, the Company performed a limited analysis to estimate the results that it would obtain were a complete, detailed lead/lag study performed. The limited lead-lag analysis shown in Supplemental Schedule C to Mr. Kruszyna's testimony (Exh. BG-7) resulted in an "estimated" lead-lag period of 43.6 days. See Exh. BG-7 (Supp. Sched. C). As described by Mr. Kruszyna, this limited analysis does not encompass all of the factors considered in a full lead-lag study and, therefore, should not be used to determine the number of lead lag days for calculating working capital. However, the analysis is useful in that it demonstrates that the use of the 45-day convention remains a valid proxy for the calculation of the Company's working capital requirement. Consistent with the Company's overall philosophy with respect to the presentation of this case, the Company properly determined that the substantial expense of a lead-lag study was not appropriate or cost-effective in terms of providing any enhancement to the cash working capital calculation.

The Attorney General's arguments with respect to working capital disregard the evidentiary presentation and, in a distorted factual presentation, apply an erroneous analysis from the Company's purchased gas lead/lag analysis to its base rate working capital allowance. The Attorney General begins his argument based upon the testimony of Mr. Allessio with respect to the enhanced automated meter reading systems installed by the Company. AG In. Br., p. 28. As an initial matter, the Company is proud of its efforts to complete its AMR program and believes that this effort will enhance service quality by reducing estimated bills. Mr. Allessio also described the enhancements to the Company's information technology system that allows for the download of meter reading data into the billing system program. Tr. 2, 173-175. The Attorney General then turns this enhancement into a purported justification for eliminating the entire "billing lag" of 4.25 days. AG In. Br., p. 28.

In fact, the Company's gas cost lead/lag analysis described several components or tasks that are completed during this period. First, when bills are calculated and reviewed at the Company's headquarters, printing and mailing is performed by a vendor. The Company noted that "including weekends and holidays, the average delay time from meter reading to billing firm customers is 4.25 days. . . ." Exh. BG-26, Sched. JMB-4, p. 3. The Attorney General's arguments suggest that no time should be allowed for analysis of meter reading data for validity, accuracy or consistency with past usage for the location. These would hardly be the practices of a utility committed to customer service. The Attorney General assumes absolutely zero time is necessary for analysis and review of high, low or missed reads or any corrective action. The Attorney General's analysis allows no time for data transfer to the bill printing vendor, the printing of bills, the review of printed bills, analysis of any bills to hold, processing of bills into envelopes or the delivery of bills to the post office for mailing.

In sum, the Attorney General's analysis of the gas cost working capital analysis is flawed. The billing lag period is appropriate and based upon Company test year experience, at least in terms of the cost of gas analysis. The Attorney General has not demonstrated any basis for not accepting the Company's cost-effective application of the 45-day convention. Accordingly, the Department should accept the Company's working capital allowance reflected in Schedules JJK-3 and JJK-4.

### 2. Revenues

#### a. Weather Normalization

The Company prepared its cast off cost of service analysis based upon "normal" weather. Consistent with well-established Department precedent, the Company applied the average degree-days over the last 20 years. Exh. BG-25, p. 2; Exh. BG-26, Sched. JMB-2; Exh. BG-5, p. 9; Exh. BG-6, Sched. JJK-15; Commonwealth Gas Company, D.P.U. 87-122 (1987); Berkshire Gas, D.P.U. 92-210, p. 28. Ms. Boucher explained, "all sales volumes [were] weather normalized on a billing cycle basis by converting the actual and normal degree-days from a calendar year to a billing year." Exh. BG-25, p. 2. Because some January 2000 billing cycles include December 1999 consumption, a weighted average of the daily degree-days was employed. Id. The temperature sensitive portion of each rate class was identified based upon average use per customer in July and August. Exh. BG-25, p. 3. Next, heating load per degree day was calculated by dividing heating load by actual billing cycle degree days. This factor is adjusted by the differences between test year weather and normal weather to derive the weather adjustment sales volumes. Finally, the adjusted sales volumes were multiplied by the appropriate weighted base rate to determine the revenue adjustment. Exh. BG-25, p. 3; Exh. BG-26, Sched. JMB-3. The total weather adjustment resulted in an increase to the revenue requirement of $394,962. Id.

The Company noted that it had consistently applied the well-accepted "Com Gas Method." Exh. BG-25, p. 3. No parties challenged this calculation. Accordingly, the Department should accept the proposed weather adjustment.

### b. **Farm Discount**

The Company proposes to recover the deferred farm discount credit. Exh. BG-6, Sched. JJK-22; Exh. BG-25, pp. 5-6. The farm discount was established pursuant to the comprehensive revision to chapter 164 of the General Laws effected in 1997. See "An Act Relative to Restructuring the Electric Utility Industry in the Commonwealth, Regulating the Provision of Electricity and Other Services, and Promoting Enhanced Consumer Protection Therein." Section 315 of such act requires that Berkshire provide eligible customers a ten percent discount on certain charges. As part of the process in docket D.T.E. 98-32, the Department ordered that utilities "allocate to other rate classes, as part of a general rate case, the revenue deficiency resulting from the farm discount using an allocation method approved by the Department. . . ."

As an initial matter, test year revenues reflect the credit giving during the test year. Exh. BG-25, p. 6. However, the Company remains entitled to recover amounts deferred since the establishment of the so-called farm discount credit. Consistent with the Company's overall cast off rate presentation, the Company proposes to amortize this amount over the average intervals between its last four base rate proceedings, or four years. Mr. Kruszyna's schedule JJK-22 presents the calculation of the farm discount credit for inclusion in rates. Exh. BG-6.

Accordingly, the Department should accept the Company's proposed farm discount adjustment.

### c. **Reclassification of Demand Rates**

The Company has properly adjusted its test year revenue requirement to reflect the termination or closing of certain "grandfathered" demand rates that was approved by the Department in the Company's rate unbundling order, D.T.E. 98-65 (October 23, 1998). As Ms. Boucher noted, the Company is completely terminating these rates. Exh. BG-25, p. 7. As Ms.

Boucher also described, it was necessary to normalize "grandfathered" "customers' test year revenues to reflect this known and measurable change." Id. Schedule JMB-5 provides the details of the necessary calculation. Exh. BG-26, Sched. JMB-5.

The Attorney General cites Fitchburg Gas, D.T.E. 99-118, in arguing that such change is not appropriate, characterizing the revision as simply a "rate design modification." AG In. Br., p. 18. The Fitchburg decision, in fact, supports the Company's revenue adjustment for the closing of demand rates. First, the Fitchburg decision recites the Department's well-established precedent that it "seeks to include in rates the likely cost of providing the same level of service as was provided in the test year." D.T.E. 99-118, p. 17 citing Boston Gas Company, D.P.U. 88-67 (Phase I), p. 140 (1988). The Department noted that it typically declined to make adjustments "within the normal 'ebb and flow' of customers." Id. citing Western Massachusetts Electric Company, D.P.U. 85-270, pp. 70-72 (1986); Boston Gas Company, D.P.U. 1122, pp. 46-45 (1982). In the Fitchburg decision, the Department was specifically addressing the loss of a customer that had taken services pursuant to special contracts containing demand charges. Fitchburg Gas, D.T.E. 99-18, p. 17. The Department noted that "in the case of a customer . . . whose sales are primarily determined by demand charges, a comparison to kWh sales from one year to the next would not demonstrate the full effect of the addition or loss of that customer." Id. This same logic applies in terms of establishing the revenue requirement for customers that will no longer be served under demand rates, even though remaining on the system. Thus, Ms. Boucher's analysis is wholly consistent with Department precedent, is reasonable and appropriate and should be accepted.

### d. **Unbilled Revenue**

Mr. Kruszyna described the Company's proposed adjustment for unbilled revenues. Exh. BG-5, p. 27. Mr. Kruszyna explained that with the change in the Company's fiscal year from June 30 to December 31, the adoption of an accounting policy at the end of the test year for unbilled revenues was appropriate. Due to the timing of the adjustment, its effect was to overstate revenues for the test year. The Company developed an appropriate adjustment factor for gas used in December 1999 but not billed until January 2000. Thus, Mr. Kruszyna properly adjusted January 2000 revenues to calculate revenues representative of one year of billing cycles. Id.

The Attorney General seeks an alternative adjustment based upon a derived calculation in DTE-RR-37. As Mr. Kruszyna explained, this alternative adjustment was not appropriate. First, an accounting accrual for financial reporting purposes should not necessarily be used for rate design purposes. Id.; DTE-RR-37; see also Boston Edison, et. al., D.T.E. 99-19, p. 45 ("The Department has previously held that financial accounting treatment does not automatically dictate ratemaking treatment."); Massachusetts Electric Company, D.P.U. 92-78, pp. 80-81 (1992); Bay State Gas Company, D.P.U. 89-81, p. 33 (1989); DTE-RR-37. Second, Mr. Kruszyna explained that:

> [T]he unbilled revenue calculation has an inherent amount of estimation and variables such as weather, billing adjustments, and timing. Revenues for ratemaking have historically been calculated by starting with the test year actual revenues and normalizing for weather fluctuations.

Id.; see also Section III. C. 2., supra where the Company has complied with Department precedent for weather normalization. The adoption of the Attorney General’s approach may have the effect of making the weather adjustment two times for part of the test year. The unbilled revenues adjustment proposed by the Attorney General, on the other hand, merely tracks an accounting deferral without regard for test year costs.

Accordingly, for the reasons described by Mr. Kruszyna, the Department should accept the unbilled revenue adjustment reflected in Schedule JJK-35. Exh. BG-6.

### 3. Expenses

#### a. Payroll Expense

##### i. General

Since the Company's last rate case, the Company has taken significant action to contain payroll expense, including by trimming its workforce by some twenty percent. E.g., Tr. 2, p. 163. Indeed, the Company's total payroll expense for the test year was $7,683,613, of which $5,469,915 is properly attributable to utility operations and maintenance ("O&M"), see Exh. BG-9, Supp. Sched. NU-F, figures which, when adjusted for inflation, show that the Company's payroll expense is **lower** than it was at the time of the Company's last rate case.[51]

In addition to the test-year payroll expense attributable to O&M, the Company seeks, in accordance with Department precedent, a total adjustment to O&M expense of $441,593. Exh. BG-5, pp. 10-11; Exh. BG-6, Sched. JJK-8. This adjustment is largely to reflect adjustments to annualize 2001 and 2002 union, non-union, and executive pay increases; specifically, the Company seeks adjustments of $154,331 for union pay increases; $181,061 for non-union pay increases; and $42,539 for executive pay increases. Id. Appropriate reductions were made in each category for capital and non-utility related items. Exh. BG-5, p. 10; Exh. BG-6, Sched. JJK-8.

[51] The Company's payroll expense attributable to O&M was $5,095,419 for the test year used in the Company's rate case, and thus this figure has increased in the intervening nine years by only approximately 7.3%, or far less than the overall rate of inflation. Exh. DOER 1-28.

The $441,593 figure also reflects an adjustment of $99,536 with respect to executive compensation for the test year. Id. As explained previously, under the Company's PCM proposal, the Company has presented its cost of service schedules on a "stand alone" basis, as if the merger with Energy East had not occurred. E.g., Exh. BG-5, p. 3. Accordingly, it was necessary to make an annualization adjustment with respect to the two retired officers (CEO and Vice President) whose positions were not directly filled because of the merger[52] – in other words, to add back the salary that the Company would have paid these two executives had the merger not occurred and they had continued working for the entire test year. Exh. BG-5, p. 10; Exh. BG-6, Sched. JJK-8. If such an adjustment were not made, in order to ensure that Berkshire's cast off rates reflected its cost of service, merger-related costs that enabled these retirements would need to be rolled into rates. The Company's proposal avoids the need for such analysis.

**ii. Non-Union and Executive Increases**

The Company's outstanding success in containing payroll costs is particularly apparent with respect to its non-union and executive payroll. The Company's test year non-union and executive payroll expense attributable to utility O&M was $2,943,340.[53] This figure is some $502,882 less than the $3,446,222 in non-union and executive test year payroll that applied in the Company's last rate case, almost nine years ago. Compare Berkshire, 92-210, p. 34, with Exh. BG-6, Sched. JJK-8; Exh. BG-9, Sched. NU-F. Even when the requested adjustments are added for 2001 and 2002 increases in non-union and executive compensation, the total is only $3,131,066, a figure still below the figure for the test year in the last rate case even before

---

[52] Berkshire would emphasize that in the post-merger environment many of the tasks performed by such individuals are now performed by Energy East. No Energy East costs for such services are included in Berkshire's rates.

[53] This figure is the sum of the total actual test year payroll attributable to utility O&M, see Exh. BG-9, Supp. Sched. NU-F, plus the $99,536 adjustment to annualize the salaries of the retired

adjustments for increases. Id. This circumstance is a testament to the Company's unqualified success over the past nine years in containing payroll costs without sacrificing quality and reliability.

Not surprisingly, then, the Company's test year non-union and executive compensation, and the proposed increases thereto for 2001 and 2002, are demonstrably reasonable and consistent with Department precedent. In deciding the propriety of prospective non-union wage adjustments, the Department invokes a three-part standard: there must be (1) an express commitment by management to grant the increase; (2) an historical correlation between union and non-union raises; and (3) an amount of increase that is reasonable. E.g., Berkshire, D.P.U. 92-210, pp. 35-36; Bay State, D.P.U. 92-111, p. 102. Here, the non-union average increase of 4.5% is already in effect, and historically, on a pre-merger, stand alone basis, Berkshire has announced its increases for the following year – in this case, 2.75% for 2002 – before December 31 of the prior year, so the first prong of the Department's test is satisfied. See Exh. BG-5, p. 11.

Moreover, the Company has established the requisite historical correlation between union and non-union increases. As Supplemental Schedule D to the testimony of Mr. Kryszyna reveals,[54] non-union increases since the last rate case have typically exceeded the union contract increases,[55] and thus when compared to the union increases of 2.75% in each of 2001 and 2002,

---

executives, Exh. BG-6, Sched. JJK-8.

[54] Exh. BG-7, Supp. Sched. D. Although the method of calculating increases used in Exh. BG-6, Sched. JJK-8 is more accurate than that employed in the Schedule D calculations, see DTE-RR-33, the general relationships reflected on Schedule D are valid.

[55] As Ms. Zink explained in her testimony before the Department, at least two factors contribute to this circumstance. First, most of the non-union employees are college-educated professionals whose responsibilities have expanded as the Company has downsized and whose salaries are subject to different market forces than are union wages. Tr. 13, pp. 1418-20. Second, while most non-union employees are not eligible for overtime, union employees can augment their base pay though overtime earnings. Id.

the non-union average increases of 4.5% and 2.75% for these two years, respectively, are consistent with the historical relationship. See BG-5, pp. 10-11; BG-6, Sched. JJK-8.

Finally, the test year non-union payroll and the proposed adjustments are eminently reasonable. With respect to non-union test-year payroll, the Company recently undertook a compensation study to ensure that its wages are reasonable and consistent with its overall labor-management strategy to minimize labor costs. See Exh. BG-22, pp. 18-19. In particular, the Company retained the services of CFS Consulting, Inc. ("CFS") in 1999 to perform a company-specific study of the Company's salaries and compare them to an appropriate external marketplace. Id. at 18. CFS accordingly identified and compared market benchmark matches for a cross-section of the company's 54 non-executive job titles and determined that the Company's then-current salaries were, on average, 94.7 percent of the 1999 average market salary going rates, and total cash compensation was 91 percent of market going rates. Exh. BG-22, p. 19; Exh. BG-23, Exh. KLZ-2, p. 6.

CFS also recommended wage ranges for various categories and grades of employees as part of its study. Exh. BG-22, p. 20. A comparison of these recommended ranges with the Company's wage rates in effect at the time of this filing, which already reflect the non-union increase for 2001, show that in some cases the Company has succeeded in holding wages even below those recommended by CFS in 1999, particularly with respect to employees earning higher wages. Exh. BG-22, p. 20; Exh. BG-23, Exh. KLZ-2; Exh. BG-23, Exh. KLZ-3. Accordingly, the CFS study confirms not only that the Company's test year wages were reasonable but also that the 2001 increase is reasonable. See Berkshire, D.P.U. 92-210, pp. 31-32 (wages and wage increases must be reasonable).[56]

[56] The Company explored the possibility of obtaining an updated compensation study by

These findings are corroborated by the study entitled, "Human Resources Association of Berkshire County Compensation and Benefits Survey 2000, Results and Analysis" (the "Survey"). Exh. BG-23, Exh. KLZ-4. The Survey was conducted by the Human Resources Association of Berkshire County of, inter alia, the average minimum and average maximum wages for various positions in the County as of March 1, 2000. Exh. BG-22, pp. 20-21; Exh. BG-23, Exh. KLZ-4. Comparison of the reported figures with the Company's wages for comparable positions reveals the Company's wages to be generally consistent with those reported. Exh. BG-22, p. 21; compare Exh. BG-23, Exh. KLZ-4 (Survey) with Exh. BG-23, Exhs. KLZ-5 (Company annual salaries by grade) & KLZ-6 (Company job titles and grade equivalents).[57] Accordingly, the non-union compensation is in line with compensation for like positions in the Company's service area. See Berkshire, D.P.U. 92-210, pp. 37-38.

The Company's test year executive compensation and proposed adjustments for 2001 and 2002 increases also satisfy the three criteria set forth above. First, the 2001 average increase of 11.7% has already been implemented, and, with respect to the 2.75% increase for 2002, the Company historically, on a pre-merger, stand alone basis, has announced executive salary increases before December 31 of the prior year. Cf. BG-5, p. 11. Second, as with non-union compensation, increases for executive compensation have generally been greater than those for

---

soliciting proposals from two consultants. BG-22, p. 23; Exh. AG 3-10. One firm estimated a cost of $19,000 to perform the study, exclusive of any direct testimony time and cost for testifying in this proceeding. Id. The other proposal was even higher: an estimated $26,000 to $28,000 to perform the study, exclusive of administrative and out-of-pocket expenses and exclusive of approximately $400 per hour to prepare and provide testimony. Id. Given that the CFS study was less than two years old and demonstrated the Company's success in implementing its least-cost strategy regarding labor costs, and mindful of the Department's admonition to control rate case expense, the Company determined not to incur this significant additional expense, given the limited anticipated benefit to this proceeding. Id.

[57] To make the comparison, one must convert the Company's annual wages to hourly rates by dividing a particular annual wage by 2080 hours. Tr. 3, p. 379.

union wages and thus an historical correlation exists between the two. See Exh. BG-7, Supp. Sched. D; see also n. 15, supra.

Finally, both the test year compensation and the 2001 and 2002 increases plainly are reasonable. In 1999, CFS performed a review of the Company's compensation for executives and members of the board of directors. DTE-RR-34 (confidential attachment). Among other things, this study compared the Company's executive compensation with published executive pay studies of the American Gas Association, the Hay Group, the Survey Group, and a confidential survey of utility executive pay. Id., p. 3. Comparing the Company's executive pay to 1999 competitive executive pay revealed, for example, that the CEO's direct pay was only approximately 68% of market, with the salary component only 95% of market; that the total direct pay to the Vice President-Treasurer and CFO was only 67% of market, with the salary component only 83% of market; and that the total direct pay to the Vice President for Utility Operations was only 81% of market, with the salary component 98% of market. Id., pp. 6-8. Accordingly, to bring the Company's executive compensation up to market, CFS recommended that the compensation range for the CEO be set with a minimum salary of $168,000, a midpoint of $210,000, and a maximum of $252,000; and that the compensation range for vice presidents (which, at the time, included the position of Director of Operations) be established with a minimum salary of $107,520, a midpoint of $134,000, and a maximum of $161,280. Id. p. 13.

A comparison of these market salary ranges from 1999 with the Company's current executive compensation reveals that, even with the 2001 increases factored in, the Company's President and CEO, Vice President, and Director of Operations (which, again, was a Vice President position at the time of the CFS study) all are receiving annual salaries below the midpoints established based on the 1999 market study. Compare Exh. AG-5-4 (executive salaries for five consecutive years ending with 2001) with DTE-RR-34 (confidential attachment, p. 13). Indeed, even when the 2.75% increases for 2002 are factored in, these salaries are still below the salary range midpoints based on the **1999** market. Id.

Accordingly, the Company's non-union and executive salaries, together with the adjustments based on known and measurable increases to take effect before the midpoint of the rate year, are manifestly reasonable and otherwise in accordance with Department precedent. The Company has done an exemplary job of containing salaries, and the Department should allow the Company to include the test year salaries and proposed adjustments to be included in the Company's cost of service.

#### iii. Union Increase

The Department has required that post-test year wage and salary adjustments be known and measurable. E.g., Berkshire, D.P.U. 92-210, p. 31; Massachusetts Electric Company, D.P.U. 92-78 (1992), p. 78; Bay State, D.P.U. 92-111 (1992), pp. 97-98. In order for adjustments to qualify as known and measurable, they must take place before the midpoint of the twelve months following issuance of the Department's Order, and they must be based on signed contracts between the union and the Company. Berkshire, D.P.U. 92-210, p. 31; Bay State, D.P.U. 92-111, pp. 97-98.

The Company's proposed adjustment for union wage increases plainly meets these criteria. The Company's current union contract, which is in effect from April 1, 2000 through March 31, 2003, is a signed contract that obligates the Company to increase the base union wages in effect in 2000 by $100,381 no later than April 1, 2001, and by an additional $103,141 no later than April 1, 2002 – well before the mid-point of the rate year. Exh. BG-5, pp. 10-11;

Exh. BG-6, Sched. JJK-8; Exh. BG-38. These figures, less reductions for capital and non-utility items, yield the requested adjustment of $154,331 for union wage increases. Exh. BG-6, Sched. JJK-8. As Mr. Kruszyna explained, the increases have been calculated based on hourly rates and do not reflect higher cost increases due to progression, on-call, and overtime. Exh. BG-5, p. 10.

In view of the Department's directive that union wage levels should be compared with those of other New England utilitites, see Bay State, D.P.U. 92-111, p. 98, the Company obtained a Labor Relations, Wage & Benefit Survey generated by the New England Gas Association in 1999 (the "NEGA Survey"), which compared wages for gas companies in New England. Exh. BG-22, p. 22. The NEGA Survey reveals that the Company's 1999 wages were roughly consistent with those for the gas supply industry in New England. Id.; Exh. BG-23, Exh. KLZ-7. The NEGA Survey further revealed that the Company's maximum hourly rates for various job categories consistently were below the highest reported maximum wages for those categories. Id.

These findings are corroborated by the Berkshire County Survey. Exh. BG-23, Exh. KLZ-4. The Survey, in addition to reporting on non-union compensation, also included average minimum and average maximum wages for various union positions in the County as of March 1, 2000. Exh. BG-22, pp. 20-21; Exh. BG-23, Exh. KLZ-4. Comparison of the reported figures with the Company's wages for comparable positions reveals the Company's wages to be generally consistent with those reported. Exh. BG-22, p. 21; compare Exh. BG-23, Exh. KLZ-4 (Survey) with Exh. BG-23, Exhs. KLZ-5 (Company annual salaries by grade) & KLZ-6 (Company job titles and grade equivalents).[58] Accordingly, the Company's union wages, like its

[58] To make the comparison, one must convert the Company's annual wages to hourly rates by dividing by 2080 hours. Tr. 3, p. 379.

non-union compensation, is in line with compensation for like positions in the Company's service area. See Berkshire, D.P.U. 92-210, pp. 37-38.

Consequently, the Department should allow both the test year union payroll expense attributable to utility O&M and the proposed increases for 2001 and 2002 to be included in the Company's cost of service.

**iv. Attorney General Arguments**

The Attorney General does not contest the Company's union and non-union wages and adjustments. Instead, he limits his complaints to two aspects of the Company's executive compensation: the level of the 2001 executive increase, and the inclusion of Mr. Robinson's and Mr. Marrone's salaries in the Company's cost of service. AG In. Br., pp. 34. Both grievances are without merit.

**A. Executive Increase, 2001**

The Attorney General first argues that the 2001 increase in executive compensation of 11.7% does not satisfy two of the Department's three criteria because, according to the Attorney General, the requisite correlation between union and executive increases is lacking and the increase is not reasonable. The Attorney General is wrong on both counts.

First, even by the Attorney General's own calculation, executive salaries increased by an average of 9.10% during the last nine years, while union wages increased by an average of 2.92%. AG In. Br., p. 30 n. 20. Department precedent requires an historical correlation, not an historical equivalence, in the difference between executive increases and union increases. Western Massachusetts Electric Company, D.P.U. 87-260 (1988) (The Department rejected the approach of limiting non-union payroll increases to the level of union payroll increases). While there have been some years in which the spread has been less than the 8.95% difference between executive and union increases for 2001, there have been a number of years in which the spread has been greater than 8.95%. Exh. BG-7, Supp. Sched. 10. Accordingly, the record, far from supporting the Attorney General's position, instead establishes the necessary correlation between executive and union increases.

Second, the Attorney General claims that the Company has provided no study showing the 11.7% increase to be reasonable. AG In. Br., p. 30. The record again belies the Attorney General's argument. As discussed above, the Company has provided a study that CFS conducted in 1999 in which CFS determined the Company's executive pay was well below market and established suggested ranges for CEO and vice president. See DTE-RR-34 (confidential attachment, p. 13). A comparison of these ranges with the salaries of the Company's current executives reveals that the current officers are still earning less than the midpoints suggested based on the 1999 market; indeed, even with the 2001 increase, the current Vice President is barely earning the 1999 minimum. Compare Exh. AG-5-4 with DTE-RR-34 (confidential attachment, p. 13). Given that the increase in question has not brought the current officers even to the 1999 midpoint, the Attorney General's claim that the increase is not reasonable is not supportable.

### B. Inclusion of Messrs. Robinson's and Marrone's Compensation

The Attorney General's second complaint regarding executive compensation is that the Company is inappropriately seeking to include in cost of service not only annualized test year compensation for departed executives Scott Robinson and Michael Marrone but also 2001 and 2002 increases for these departed employees. AG In. Br., pp. 31-34. This argument is easily dispatched.

First, discussed at length in section II.E, supra, the Company is proposing to address all merger-related issues through the PCM. An integral part of this exercise entails using a pre-merger 2000 test year in which all merger-related costs are stripped out and the Company's costs are presented on a stand-alone basis, as if the merger had not occurred. See, e.g., section II.E, supra. In order accurately to present the Company on a pre-merger, stand-alone basis, one must not only remove in excess of $66 million in merger-related costs but also restore expenses that, solely as a result of the merger, are no longer being incurred. Had the merger not occurred, Mr. Robinson and Mr. Marrone would have continued their employment with the Company through the test year. Cf. Exh. BG-5, p. 11. Accordingly, in order to accurately present the Company's costs as if the merger had not taken place, it is essential that the compensation of Messrs. Robinson and Marrone be included, not simply through their dates of retirement, but annualized through the end of the test year. See Exh. BG-5, p. 11. It is worth noting in this regard that, assuming arguendo the accuracy of the Attorney General's calculation that the Company's proposed cost of service includes $258,903 attributable to Messrs. Robinson's and Marrone's compensation, this figure pales in comparison to the $66-plus million in costs actually incurred that have been stripped out of the equation.

Second, the Attorney General is simply incorrect in arguing that the Company's proposed executive compensation adjustment includes adjustments for Messrs. Robinson and Marrone. Instead, the increase of $29,500 for 2001 reflected in Schedule JJK-8 to Mr. Kruszyna's pre-filed testimony represents only the difference between the salaries at year end 2000 and the salaries after the 2001 increases for the three current Berkshire executives who received raises in 2001. See DTE-RR-33.[59] Similarly, the $13,039 increase for 2002 reflected in Schedule JJK-8 is

[59] In fact, the 11.7% figure is overestimated since it excluded the one executive whose salary was

simply the product of the current four executives' 2001 salaries multiplied by 2.75% ([$76,000 + $193,150 + $110,000 + $95,000] x 2.75%=$13,039). See Exh. AG-5-4. The Company would have been fully justified in including increases for Messrs. Robinson and Marrone for 2001 and 2002, which would have increased the total executive compensation increase attributable to utility O&M above the $106,201 reflected in Schedule JJK-8. Instead, the Company took the far more conservative approach outlined here.

In sum, the Department should reject the Attorney General's arguments regarding executive compensation and approve the Company's proposed adjustments.

**b. Health Care Expense**

**i. General**

The Company's medical expense attributable to utility O&M was $920,106 for the test year. See Exh. BG-6, Sched. JJK-32. In accordance with Department precedent, the Company also seeks adjustments based on anticipated increases to medical expenses for 2001 and 2002 of $89,253 and $92,992, respectively. Exh. BG-5, pp. 24-25; Exh. BG-6, Sched. JJK-32.

As the record in this proceeding makes plain, the Company has built on the already "appropriate, effective actions to contain health care costs" that the Department recognized in Berkshire's last rate case. Berkshire, D.P.U. 92-210, p. 43. As early as 1996, the Company switched to an HMO/Managed Care Plan administered by Blue Cross Blue Shield of Massachusetts to further control the costs of its existing self-insured plan through managed care procedures and to take advantage of vendor discounts associated with managed care plans. Exh. AG-1-53. The Company currently is self-insured to a maximum of $50,000 per occurrence, after which coverage is assumed pursuant to a stop-loss plan. See Exh. AG-1-66. The Managed Care

---

unchanged at the end of the calendar year 2000 as compared with 2001.

program promotes wellness, includes annual physicals, and encourages a healthy lifestyle in order to reduce health care costs. Exh. AG-1-53. To further reduce costs to the Company, employee co-pays for office visits were increased from $10 to $20 effective July 1, 1999, and emergency room co-pays increased from $25 to $50. Id. Beginning on April 1, 2001, employees started contributing 5% toward their health care premiums. Id. The dental plan also was changed to reduce costs; in particular, deductibles of $50 and $150 were introduced with respect to Tiers Two and Three, respectively. Id.

The Company offers a choice of either an HMO plan or a more costly point-of-service ("POS") plan. Exh. AG-1-53. Employees pay a higher co-pay if they choose the POS plan. Id. The Company also encourages employees to choose the HMO plan if consistent with their needs. Id. In fact, the Company has held meetings to explain the value of the HMO plan, as a result of which approximately 10% of the workforce switched from the POS plan to the lower-cost HMO. Id.

The Company also promotes fitness by offering reimbursement of $100 toward health club memberships or exercise equipment. Exh. AG-1-53. Moreover, the Company has taken affirmative steps to train employees who work at computer terminals and to make adjustments to their workstations to prevent cumulative trauma disorders. Id.

In sum, the Company has pursued an aggressive and successful program to contain medical costs.

**ii. Adjustments**

The Department permits test year health care expenses and post-test year adjustments that are reasonable and known and measurable to be included in cost of service. E.g., Boston Gas, D.P.U. 96-50 (Phase I), p. 46; Berkshire, D.P.U. 92-210, p. 43.

Here the Company's test year expenses and adjustments are manifestly reasonable, in light of the Company's demonstrable success in health care cost containment. As shown above, the Company has, among other things, switched to a managed care plan to take advantage of managed care procedures and vendor discounts; raised employee co-pays; instituted deductibles for its dental plan; promoted, where appropriate, the lower-cost HMO alternative; and supported employee wellness and preventative measures. See Berkshire, D.P.U. 92-210, p. 44.

Moreover, the Company has provided reliable forecasts from its benefits consultant, Gallagher Benefit Services ("Gallagher"), which projected an increase in medical costs for the fiscal year 2001 of between 9.8% and 12%, and an increase for fiscal year 2002 of between 8.9% and 9.5%. Tr. 9, pp. 1006-08; Exh. BG-7, Supp. Sched. H. In calculating the increase for calendar year 2000, the Company conservatively took the average of the low ends of the forecasts, or 9.35%, to arrive at an adjustment for 2001 of $89,253. Exh. BG-6, Sched. JJK-32. Similarly, the Company took the low end of the 2002 projection, or 8.9%, to derive the $92,992 adjustment for 2002. Id.

**iii. Attorney General Arguments**

The Attorney General does not dispute the reasonableness of the Company's test year health care expenses. See AG In. Br., pp. 34-36. Rather, the Attorney General takes issue only with the Company's proposed adjustments, and proposes, in their stead, a total adjustment of only $826, based on the Attorney General's belief that the known and measurable rate of change in the Company's medical costs is 4.73%. The Attorney General's analysis is twice flawed.

First, the Attorney General claims that the Gallagher forecasts "[are] woefully overinflated" and argues that the increases in each of 2001 and 2002 should be limited to the 4.73% increase experienced between fiscal year 2000 and fiscal year 2001, claiming that this is the only known and measurable change in health care costs. AG In. Br., pp. 34-35. In so doing, the Attorney General simply ignores the fact that the Company's proposed adjustments are based on calendar years rather than fiscal years, and that, in fact, the annualized increase in the Company's 2001 medical expenses as of the end of September was at least as high as, if not higher than, the proposed adjustment for 2001. Tr. 9, p. 1008 ("[I]n fact, the [C]ompany is experiencing higher medical costs during this current year than was projected"); Tr. 14, p. 1567 ("As we speak, the [C]ompany has already gone through nine months of this 2001 period, and indeed the costs are higher. I do not have the exact figure, but I'm quite certain they're at least as high as the projection, if not higher.").[60] Thus, the only evidence in the record shows, not that the Gallagher projections are overinflated, but rather that they are conservative. Accordingly, the Gallagher projections are demonstrably reliable, and the Department should approve the proposed adjustments based on these projections.

The Attorney General's second error is equally fundamental. On page 34 of his Initial Brief, the Attorney General calculates the Company's test year medical expense attributable to utility O&M by subtracting from the total Company medical expenses those allocated to non-utility operations: $955,600 (Company total) - $6,694 (allocation to Rentals) - $28,800 (allocation to Merchandising/Jobbing) = $920,106. AG In. Br., p. 34 n. 25. On the next page, however, in calculating the adjustments for 2001 and 2002, the Attorney General compounds his error in using the artificially-low rate of 4.73% by again deducting the test year allocations for non-utility operations, that is, he again deducts the $6,694 Rental allocation and the $28,800 Merchandising/Jobbing allocation. AG In. Br., p. 35. This double hit plainly has no basis in

[60] Indeed, as the Company represented in its initial filing, it will be updating Supplemental Schedule H to Mr. Kruszyna's pre-filed testimony based on actual figures for 2001. Exh. BG-5, p. 25. Preliminary calculations, based on costs through the end of October 2001, annualized,

Department precedent or logic. Once the non-utility allocations have been stripped out of the test year medical costs, the percentage adjustments are being applied only to costs attributable to utility O&M and there is no need to make further adjustments for non-utility costs.[61]

In sum, the Department should reject the Attorney General's flawed analysis and should approve the Company's proposed adjustments to test year health care expense.

**c. Strike Contingency Expense**

**i. The Department Should Allow the Company to Include Its Proposed Strike Contingency Expense in Its Cost of Service**

The Department routinely has directed the Company and other utilities to pursue an overall labor-management strategy to minimize unit labor costs while at the same time maintaining safe and reliable service to customers. See, e.g., Berkshire, D.P.U. 92-210, p. 32. In accordance with that directive, the Company incurred a strike contingency expense during the test year of $162,436. Exh. BG-5, pp. 18-19; Exh. BG-6, Sched. 21. This amount included training non-union staff to operate the Company's business in the event of a strike; security measures such as changing locks to secure the assets of the Company, fencing installation, and communications equipment; security personnel; a customer information program; and the like. Tr. 9, pp. 1013-15; Exh. AG-5-17 & Sched. AG-5-17.

As Mr. Kruszyna explained in his testimony, this expenditure was an integral part of the Company's strategy to minimize labor costs while assuring reliable service to customers. Tr. 9, pp. 1013-15. Plainly, a necessary concomitant of firm union negotiations is the ability of management to weather a strike in the event it deems union requests unacceptable. Id. By the

---

show that the increases are actually running at a rate of 11.64%.

[61] Thus, even using the Attorney General's incorrect 4.73% rate of increase for the two years, the total adjustment would be at least $36,320.

same token, if union negotiators are aware that management is not prepared to operate the business in the event of a strike, the union's hand is greatly strengthened and management will be unlikely to hold union wages to a reasonable level. Indeed here, because of its wise expenditure for strike contingency, management was able to negotiate from a position of strength in the test year when negotiations with the union went "to the brink" – indeed, to continue to operate the Company in the face of a union vote to strike and a one-day work stoppage – and was thereby able to minimize labor costs (while at the same time ensuring just and equitable pay for its valued union employees). See Tr. 9, p. 1016; DTE-RR-32. Moreover, without measures to protect the Company's non-union employees and assets, a strike could result in a disruption of service to customers and jeopardize employees and Company property. Exh. BG-5, pp. 18-19.

The Company expects the strike contingency expense to be a periodically recurring expense given that, each time it negotiates a new union contract, it must take steps to protect its assets and run the business with non-union employees in the event of a strike. See Tr. 9, 1015-16. Indeed, the Company incurred like expenses in 1996, during the union negotiations immediately preceding those that occurred in the test year. Exh. BG-5, p. 19. The Company accordingly proposes to normalize the expense over three years, which term coincides not only with the term of the current union contract now but also the average of the terms of the Company's union contracts over the past decade. Exh. BG-5, p. 18-19; Exh. BG-6, Sched. JJK-21.

Accordingly, one third of the test year strike contingency expense, or $54,140, should be included in the Company's cost of service.

#### ii. The Attorney General's Argument is Without Merit

The Attorney General argues that the Company's strike contingency expense should be excluded from the cost of service. AG In. Br., p. 40. In support of this position, the Attorney General contends that, given that the Company's last strike was 19 years ago,[62] it is implausible that these costs will be incurred each time the Company negotiates a union contract. Id. In so doing, the Attorney General confuses the purported implausibility of a strike with the certainty that the Company will incur strike contingency costs. As explained above, in order both to ensure reliable, uninterrupted service and to minimize labor costs, the Company must be prepared each time it negotiates a new union contract to operate the business in the event of a strike. Tr. 9, pp. 1014-16. The Attorney General's notion that the Company will only incur these expenses in the event of an actual strike is simply incorrect: the Company is no more prescient than anybody else, and thus must incur these costs regularly, both to protect against a strike and to negotiate with the union from a position of reasonable strength. Accordingly, the expense is necessary; it is a periodically recurring expense; and the appropriate term of the period is not the span between strikes but rather the span between negotiations with the union, which are the occasions that necessitate the expense. The Department should thus reject the Attorney General's arguments and allow the Company to normalize the expense over three years, as proposed.

### d. 401(k) Plan Costs

The Attorney General notes that the Company's 401(k) Plan expenses should be allocated to capital and non-utility expenses. AG In. Br., pp. 36-37. The Company agrees with this

[62] Again, the union actually did vote to strike during the test year and did engage in a one-day work stoppage, during which non-union employees operated the business. Tr. 9, p. 1016; DTE-RR-32.

conceptual statement, but notes that the Attorney General has overstated the appropriate adjustment. The Company agrees with the Attorney General that the total amount of test year 401(k) costs were $233,903. The appropriate allocation of capital is derived from Exhibit BG-9, Supplemental Schedule NU-F, line 32. Total payroll allocated to capital divided by total payroll resulted in an allocation factor of 11.0% ($847,221 ÷ $7,683,613 = 11.0). Thus, the appropriate allocation of 401(k) expense to capital is $25,729 ($233,903 x 11.0%). The non-utility portion of such expense is derived similarly. First, an allocation factor is determined ($48,295 (rentals) + $207,795 (M&J) + $377,974 (Propane) + $13,498 (Service) + $40,406 (Berkshire Energy Resources) = $687,968, which is then divided by total payroll of $7,683,613 = 8.95%). Thus, the appropriate allocation of 401(k) expense to non-utility is $20,934 ($233,903 x 8.95%). These adjustments will be reflected in the cost of service schedules to be provided with the Company's reply brief.

#### e. <u>**Severance Payments**</u>

In connection with the retirement of two officers of the Company upon the change of control, the Company arranged for former Company-provided cars to be sold to such officers. The Attorney General misstates the facts with respect to the treatment of these vehicles in proposing an adjustment to the cost of service. AG In. Br., pp. 41-42. First, the Attorney General confuses the value of the two vehicles, and then he ignores the manner in which the Company has treated the costs of such vehicles.

The Attorney General incorrectly states that the value of Mr. Robinson's automobile was $14,890. <u>Id</u>. In fact, that is the value of the vehicle provided to Mr. Marrone in his severance. Mr. Kruszyna explained that the loss of $14,890 was charged to account 242 2730, the liability for the change of control. AG-RR-35. As liabilities for change of control were never reflected in the cost of service for establishing cast off rates, no further adjustments are necessary or appropriate, with respect to that transaction. As to Mr. Robinson's vehicle, in terms of finalizing his severance, the Company negotiated a specific sales price that resulted in a loss of $3,250. This loss was recorded in account 930, officers' expenses, during the test year. Id. The Company will remove $3,250 from Schedule JJK-16 in the revised cost of service schedules presented with its reply brief.

#### f. Consultant Fees Expense

The Company's cost analysis properly included the $25,000 cost associated with the consulting services provided by Mr. Joseph T. Kelley, the former chairman and president of the Company. Exh. BG-6, Sched. JJK-20. Mr. Kelley continues to provide advice and counsel to the Company, particularly to the Company's president and chief executive officer. Tr. 14, pp. 1555-56. The Attorney General argues for the exclusion of such costs because of the lack of documentation associated with such services and a misplaced emphasis on the fact that Mr. Kelley's service may provide benefits in terms of dealing with local officials.

The Department should reject the Attorney General's arguments. First, Mr. Kruszyna explained that Mr. Kelley meets regularly with Mr. Allessio to discuss "utility operations." Tr. 14, pp. 1556-57. In Berkshire Gas, D.P.U. 92-210, pp. 51-52, the Department expressly found that Mr. Kelley's regular consultation provides value and "that the Company's ratepayers benefit from the considerable gas utility experience and familiarity with the Company provided by . . . Mr. Kelley. . . ."[63] Second, the Attorney General resurrects arguments from the Company's last base rate proceeding with respect to the documentation of the dates, hours and particular services provided by Mr. Kelley. AG In. Br., p. 39. These arguments were rejected in the last base rate

[63] The Company allocated a portion of Mr. Kelley's consulting fees to non-utility operations. See

proceeding. Berkshire Gas, D.P.U. 92-210, p. 50. The Department should again reject these arguments and permit the Company to reflect this reasonable consulting fee in rates.

**g. SERP**

The Company, as part of its establishment of stand alone cast off rates, reflects a normalized annual contribution to its SERP. The SERP was established as part of its executive compensation package. Cf. Exh. AG-1-6; DTE-RR-34 (confidential) (An executive compensation analysis reflected SERP). As Mr. Kruszyna, explained, "upon a change of control, Berkshire was under a contractual obligation to make an irrevocable contribution to the Trust in an amount to pay each beneficiary the benefits entitled." Exh. BG-5, pp. 22-23. In fact, the Company removed from its cost of service in the test year the full amount of these change of control payments. Id. at 23; Exh. BG-6, Sched. JJK-16, line 6.

The Attorney General would appear to support this adjustment, but seems confused as to the amounts related to SERP reflected in the cost analysis. AG In. Br., p. 50. The Attorney General argues that an amount of $285,153 should be removed from the cost of service because it was an "accelerated payment." Id. The facts are counter to the Attorney General's concern: the accelerated payments were removed in Schedule JJK-16. The amount cited by the Attorney General is the normalized payment level for the SERP had the Company continued on a stand alone basis and the SERP funding obligation been maintained. See BG-5, p. 23; Exh. BG-6, Sched. JJK-28. Schedule JJK-28 explains that the Company presented a conservative calculation of the representative level of SERP funding. The calculation was based upon an independent actuarial analysis that showed that a 5.5 year period was required to fully fund the plan. Exh. BG-6, Sched. JJK-28; Exh. BG-7, Supp. Sched. F. The independent actuary presented five and

---

Exh. BG-6, Sched. JJK-9; Berkshire Gas, D.P.U. 92-210, p. 52.

six-year funding requirements. Id. Berkshire conservatively used the lower six-year funding estimate and then adjusted the funding level to remove the non-utility portion. Id.

Accordingly, the Department should find that the Company has reflected an appropriate SERP expense level in its cost of service analysis.

**h. Deferred Taxes Associated With Contributions in Aid of Construction**

During the course of the evidentiary hearings in response to questions from the Department staff, the Company determined that an adjustment was required with respect to rate base to remove the prepayment of taxes associated with contributions in aid of construction. See Tr. 4, pp. 519-521; AG In. Br., p. 29. The Company will present a revised version of Schedule JJK-29 to reflect this adjustment with the schedules that will accompany its reply brief.

**i. Environmental Remediation Costs**

The Attorney General argues that the Company should not be permitted to include in the test year cost of service $103,719 in environmental remediation costs. AG In. Br., pp. 48-49; Exh. AG-2-4, p. 12-1. In so doing, the Attorney General misconstrues the settlement that was reached in the Department proceeding Generic Investigation of the Facts Surrounding and the Ratemaking Treatment of the Costs of Investigating and Remediating Hazardous Wastes Associated with the Manufacture of Gas During the Period 1822-1978, D.P.U. 89-161 (1990).

In that proceeding, the Department approved a settlement enabling the Company and other LDCs to recover certain costs of remediating manufactured gas waste sites. See D.P.U. 89-161, pp. 30-37. In particular, under the terms of the settlement, LDCs such as the Company can amortize the actual response costs incurred in a given year over seven years, without carrying costs, and less the amount of a deferred tax benefit. Id., pp. 30-32. Initially the recovery of such amount was through the Cost of Gas Adjustment Clause; as the Attorney General correctly points out, with the advent of unbundled rates, recovery of this amount was shifted to the Local Distribution Adjustment Clause. Id.; AG In. Br., p. 48.

In entering into the settlement, the Department, the Company, and the other parties plainly intended that the LDCs recover the full one-seventh of the amount of these remediation costs in each of seven consecutive years.[64] Because the parties assumed that the LDCs would all realize deferred tax benefits with respect to these remediation costs, and in order to avoid a total aggregate benefit in a year greater than one-seventh of the costs incurred in a given year, the settlement provided that the anticipated tax benefits would be deducted according to a specified formula from the total one-seventh amount, and that the difference would be recovered through the CGAC (now, the LDAC). Cf. D.P.U. 89-161, p. 33; Tr. 12, pp. 1333-34.

As it turned out, owing to the vagaries of the Internal Revenue Code, the Company has not, in fact, been able to realize deferred tax benefits with respect to some of these costs. Specifically, merely because Berkshire purchased property that previously had been polluted with coal gas waste by another party, Berkshire has not been able to realize deferred tax benefits in connection with the remediation of that property. See AG-RR-30.[65]

[64] The settlement provided one exception to this general rule: if the one-seventh annual recovery exceeded 5% of the company's total revenues from firm Massachusetts gas sales during the preceding year, then the amount in excess of that 5% would be deferred and would accrue carrying charges until such time as it could be added to the amount to be recovered in a subsequent year without exceeding the 5% cap. D.P.U. 89-161, p. 34.

[65] As indicated in AG-RR-30, the Company received advice from Mr. Paul Harris, a specialist in utility taxation, that in order to receive a current tax benefit for environmental clean-up costs, the company itself must have been responsible for the pollution. The Company also attached to this Response materials from the CCH Tax Service and Deloitte & Touche supporting Mr. Harris's assessment. AG-RR-30 (attachments). AG-RR-30; Tr. 24, p. 1356.

Accordingly, the Company proposes to include in the test year cost of service a total of $103,719, which represents the portion of the Company's cost of coal gas remediation that it has been unable to recover as a defered tax benefit owing to the application of the Internal Revenue Code. There is nothing in D.P.U. 89-161 to indicate that the Department and the settling parties meant to distinguish between polluters and non-polluters by providing full recovery of remediation costs for companies that actually caused pollution while denying it to those who merely bought previously-polluted land prior to current levels of knowledge with respect to environmental issues regarding manufactured gas sites. The Company takes its environmental responsibilities seriously and its proposal in this case simply allows it to recover the deferred tax portion of the original settlement in remediating potentially hazardous conditions in accordance with sound public policy and the goals of D.P.U. 89-161. Accordingly, because the Company cannot recover the costs sought here through the LDAC, and in order to vindicate the Department's and the parties' understanding regarding the level of cost recovery, the Company seeks inclusion of this amount in its test year cost of service.

**j. Rate Case Expense**

**i. Overview**

The Company's rate case expense reflected in the cast off rates is reasonable, appropriate and established in a manner that is consistent with Department precedent. Exh. BG-22, pp. 16-17; Exh. AG 3-10. See also Fitchburg, D.T.E. 98-51, p. 54; Boston Gas, D.P.U. 96-50 (Phase I), p. 77. There are two basic issues with respect to rate case expense: (i) whether rate case expenses are reasonable and the Company has applied appropriate efforts to contain such costs; and (ii) whether the Company has reflected an appropriate level of such expenses in its cost of service analysis. Boston Gas, D.P.U. 96-50 (Phase I), p. 77; Berkshire Gas Company, D.P.U.

1490, pp. 33-34 (1983). Berkshire has presented substantial evidence demonstrating that it has managed the case effectively, that actual rate case expenses are reasonable, and that an appropriate level of such expense is reflected in rates.

**ii. Cost Containment Efforts**

Berkshire has pursued a variety of efforts that have enabled it to present a comprehensive, sophisticated case on a cost-effective basis.[66] As a preliminary matter, since it has been nine years since the Company's most recent rate filing, it was necessary to pursue a wide range of analysis. Thus, a new depreciation study, a complete rate of return analysis and substantial rate design assistance were required. The Company sought appropriate bids for certain of these services and explained, in detail, where it relied upon consultants that had provided capable, economic services to the Company in prior proceedings. Exh. BG-22, pp. 16-17; Exh. AG 3-10.[67] This proceeding also involved a number of additional issues that were not addressed in the Company's last base rate case. First, the Company responded to Department precedent through the presentation of a well-considered PCM Plan. Second, the PCM Plan also required the consideration of merger-related issues. As a practical matter, the Company's costs in this proceeding compare very favorably to other merger cases considered by the Department that did not include a complete cost of service and rate design analysis. See e.g. Essex Gas, Company, D.T.E. 98-27; Boston Edison; D.T.E. 99-19.[68]

---

[66] The Company pursued cost savings throughout the case, seeking reduced hotel rates and copying cost savings. Tr. 16, pp. 1864-1865.

[67] For example, Mr. Aikman was retained to perform the depreciation analysis, in part, due to his substantial familiarity with the Company's property, plant and equipment that reasonably could not be as cost-effectively duplicated by another consultant.

[68] While the Company notes that the size of several of these mergers in terms of aggregate dollars is greater than the size of the Berkshire-Energy East transaction, the complex legal and regulatory issues are directly comparable.

During March and April 2001, when the Company was beginning its case preparation efforts, the Company considered Department precedent with respect to the procurement of outside services. See Exh. AG 3-10. The Company specifically analyzed which outside services should be subject to a competitive bidding process. The Company also employed the competitive bid process to perform cost/benefit analysis of securing additional studies or relying upon well-accepted conventions. For example, the Company secured proposals for the performance of updated compensation analyses or a full lead/lag analysis. Exh. AG-3-10; Exh. BG-22, p. 23; see also Section III. C.1.e., supra. These bids assisted the Company in its determination that it was not cost-effective to update recent compensation studies or to depart from the 45-day convention for working capital. Id.

The Company elected to continue its long-standing relationship with several outside service providers that have had substantial experience and success before the Department without seeking competitive bids. Ms. Zink explained that "in the area of rate design, depreciation and performance based rates, the Company utilized the services of consultants that have had experience and success in Massachusetts or that have had a substantial working relationship with the Company or its affiliates." Exh. BG-22, p. 16. These consultants have substantial familiarity with the Company's "plant or rate design and provided reasonable quotations for the services provided." Id. The Company submits that the substantial contributions to Department precedent of Dr. Gordon and Messrs. Normand, Harrison, Aikman and Moul are well-known and the Company believes could not reasonably be challenged.

Ms. Zink also described the Company's analysis with respect to the retention of necessary legal services.

> In terms of legal expenses, we did not seek competitive bids for several reasons. First, our counsel has performed all the Company's regulatory

> work and substantial corporate work for many years and possesses substantial familiarity with our operations, corporate structure and particular relevant transactions. Specifically, our counsel has also provided services with respect to many issues that have driven our need for a rate filing including DSM and the development of our new LNG plant. Also, our counsel represented BER in the merger with Energy East. Our counsel has also represented Berkshire in its most recent rate proceedings. We determined that our counsel's particular knowledge and familiarity with our operations could not be replicated and that the Company would incur substantial costs if any other firm had been selected for this proceeding. Further, our counsel agreed to provide further discounts to its rates that we know to be favorable when compared with those of other firms. Finally, we have worked well with our counsel to manage or contain costs in other proceedings and expect to be able to pursue this case on an efficient basis.

Exh. BG-22, p. 17.

In addition, the Company pursued a coordinated strategy to manage legal expenses on the rate case proactively. First, the Company requested a detailed fee estimate, describing specific tasks, required time and estimated fees for each phase of the proceeding. Accordingly, Rich May responded to this requirement and provided a detailed summary of the assumptions that were the basis of its estimate. Exh. AG 3-10. Specific assumptions were stated with respect to various service requirements and base, low and high estimates were provided. Equally important, Rich May identified several factors outside its control (or, indeed, the Company's control) that would affect rate case expense. For example, Rich May accurately identified the fact that rate design issues "may be more burdensome given the extensive length of time since the Company's last base rate filing." Id. In fact, rate design issues were more involved in this proceeding resulting in higher legal and consulting costs from MAC. As noted above, it was not the Company's intention to seek "substantial changes to Department precedent." Id. However, Rich May properly identified the possibility that

> [O]ther parties [could] pursue aggressive procedural tactics, seek changes to Department policy or seek to address additional issues within the rate

> case, the Company could incur additional charges in order to secure equivalent and equitable treatment that is consistent with Department precedent.

Exh. AG 3-10.

Rich May's estimate was properly based upon the assumption of minor procedural matters. In fact, however, despite Berkshire's case presentation and general adherence to precedent, there were more substantial procedural matters to address. See e.g. Motion to Dismiss; Motion to Strike. Rich May noted that this "type of intervention or tactics could lead, in fact, to the incurrence of legal fees at or even well in excess of our high case estimate." Exh. AG 3-10. Further, Rich May's estimate stated specific assumptions on a variety of factors, including discovery and the number of hearing dates. Id. The number of hearing dates estimated was, in fact, exceeded and the Company notes that nearly every hearing involving the Company's witnesses went for the entire day. Finally, the Rich May estimate noted the possibility that a Department final decision on service quality standards could affect case requirements. Exh. AG 3-10. In fact, the particular requirements of the Department could not have been reflected in the estimate and this concern had been communicated to the Company.

Berkshire then employed an innovative, active approach to manage legal costs rather than merely reviewing after the fact legal bills. The Company required regular status updates. For example, a letter from Rich May dated August, 2001 confirmed that, despite a variety of factors that had been included in the fee estimate as contingencies, legal costs through Phase III or the estimate were consistent with budget. Exh. AG 3-10 (Suppl.); see also, Tr. 16, p. 1864-65. Moreover, Mr. Allessio and Ms. Zink engaged in essentially daily calls with counsel with respect to the rate case. The Company was fully familiar with all activities, was advised as to the status of the case, and was aware of likely costs. Tr. 16, pp 1864-1865. Ms. Zink's substantial rate case experience facilitated her management of the case. Tr. 16, p. 1860. Indeed, as shown in Exh. AG 3-10 (Suppl.), legal expenses continued to track favorably with the Company's original estimate and, as described, the Company has identified, provided and been subject to cross-examination on an updated estimate of costs during the hearings. Tr. 16, pp. 1864-69, 1875 et seq. Later, as hearings extended, the Company updated its rate case expense during the evidentiary hearings, facilitating review by the parties and the Department.

The Company explained that it was absolutely necessary to retain expert consultants and counsel to assist in the preparation and presentation of the case. Tr. 16, p. 1882. The Company's staff is lean, a fact fully reflected in cost of service. The Company has dedicated three employees to this proceeding. Id. Importantly, these employees maintain substantial additional responsibilities. The Company demonstrated that it retained the appropriate experts at the least cost and made appropriate decisions in avoiding unnecessary and substantial other expenses. Finally, the Company pursued aggressive and innovative approaches to managing cost, particularly with respect to legal fees.

#### iii. The Attorney General's Criticisms are Misplaced

The Attorney General raises several misleading criticisms relating to the fact that rate case expense was reasonable and appropriate. First, the Attorney General seeks to confuse the fact that substantial discounts were provided by Rich May. Rich May provides services to Berkshire on a discounted basis, with the primary attorneys for the Company (Messrs. Avery, Lyne and McHugh) providing discounts of at least $100/hour from their standard rates. In addition, given the substantial efforts associated with this proceeding, Rich May provided a further discount of $25/hour for this matter, capping rates at $225 per hour. Exh. AG 3-10. Ms. Zink explained that this rate was $175 per hour below the rate of approximately $400 per hour of another firm familiar with Department procedures and $160 per hour below the rates charged by another Boston firm that assisted the Company in a recent Department proceeding. Tr. 14, pp. 1528-29.[69] Again, these favorable rates were available from a firm that had substantial familiarity with the Company, its recent transactions and projects, and its regulatory history.[70]

The Attorney General next seeks to compare the hourly rates associated with the Fitchburg Gas case, D.T.E. 98-51, filed more than three years before this case. Berkshire believes that there is no comparison between these cases. While it appears that there was some effort to present a lower hourly rate for legal services, it appears from the decision that legal fees were substantially higher in D.T.E. 98-51 than in this proceeding, even though there were fewer parties or interested persons in that case, fewer hearing dates, and no PBR or merger issues to consider. Legal fees in D.T.E. 98-51 appear to be well in excess of $500,000 even though the case involved far fewer issues.[71]

---

[69] The Company respectfully requests that, for a further comparison, the Department take administrative notice of the hourly rates being charged in the ongoing Blackstone Valley Gas Company rate case. D.T.E. 01-50.

[70] The Attorney General seeks to challenge this assertion by a reference to a charge of $350 per hour by Rich May's managing director during the test year. AG In. Br., p. 44. The record demonstrates two things. First, the rate reflected a discount. Second, the charge related to the merger, an extremely sophisticated corporate transaction. AG-RR-38 (see spreadsheet of attorneys and matters included in bills; attorney "JFS" charges to "Energy East" merger matter). Importantly, all charges related to the merger, including related legal expenses, were removed from cost of service. Exh. BG-6; Exh. BG-7.

[71] Not only were Fitchburg's legal bills higher, but several other factors not relevant here applied. Fitchburg's legal fees were more than double the original estimate. Fitchburg did not provide any opportunity to evaluate such change during the evidentiary portion of the proceeding. Here, the legal fee estimate tracked actual costs until the evidentiary process was extended and Berkshire updated rate case expense during the hearings with detailed descriptions of the changed factors. Exh. AG 3-10 (Suppl.). Moreover, Fitchburg offered no basis for the fact that its overall rate case expenses were 2.5 times the estimated amount. Fitchburg Gas, D.T.E. 98-51, pp. 51-52.

Berkshire believes that in light of the complexity of its case and the required nature of its presentation, legal fees in this case were wholly reasonable and, indeed, low. Berkshire strongly encourages the Department to review the actual costs and to consider the nature of the Company's necessary presentation in this case. In addition, this case involved a proposal to address merger-related costs and not merely to seek a base rate adjustment. By comparison, legal fees in recent merger proceedings that did not involve any other aspects of a traditional base rate case were substantially higher. See Essex Gas Company, D.T.E. 98-27 ($300,000 for regulatory counsel alone); Boston Edison Company, D.T.E. 99-19 ($4,000,000 for regulatory attorneys' fees).[72]

The Attorney General also miscasts the Department's standard with respect to invoice presentation. AG In. Br., p. 44. The Department requires that documentation be provided on the "hours billed, the billing rate and the services provided." Fitchburg, D.T.E. 98-51, p. 61. Berkshire presented this detail, showing charges to the tenth of an hour, as well as substantial evidence on efforts to manage the case. See e.g. AG-RR-39. The Attorney General relies upon invoices, but ignores the substantial and detailed estimates and briefings presented to the Company.

The Attorney General also manufactures a claim of "self-dealing." AG. In. Br., p. 45. The Attorney General incorrectly states that a partner of Rich May was on the board of the Company's parent during the test year and that this fact somehow influenced the case preparation. In fact, a distinguished former Department practitioner, Franklin Hundley, had assumed retired "of counsel" status prior to the test year. Notably, no time was charged to Berkshire by this attorney during the test year. AG-RR-38. Mr. Hundley entirely retired from

[72] Some portion of the D.T.E. 99-19 fees related to work at the federal level, e.g., the SEC.

Rich May in March 2000. Moreover, after the merger with Energy East in 2000, Mr. Hundley was no longer an employee or director of Berkshire or any affiliate. Both of these events took place well before the decision to file a rate case in the spring of 2001. Tr. 16, p. 1874. The Attorney General's assertion of self-dealing seems to be nothing more than an attempt to disparage a distinguished former Department practitioner and should be ignored.

The Attorney General also challenges a portion of the costs charged by MAC merely because such costs were above the original estimate. AG In. Br., p. 46. First, as explained by Ms. Zink, MAC performed a number of additional studies necessary for the filing, but not contemplated by the original estimate. Tr. 14, pp. 1549-1550. There has been no assertion that these studies were not appropriate or necessary. Second, the Attorney General suggests that because two MAC witnesses testified in this proceeding, this somehow led to higher costs. This ignores the fact that Mr. Normand and Mr. Harrison routinely work together on rate cases regardless of whether one or both of them are witnesses. Further, Ms. Zink explained that in the course of managing costs, she was aware that MAC had assumed five "witness-days" of testimony. In fact, actual MAC witness-day testimony was more than double that estimate. Tr. 16, p. 1867. The Company notes that it made numerous requests of the parties and the Department to seek to structure examination so that both Mr. Normand and Mr. Harrsion did not need to attend hearings. See, e.g., Tr. 6, p. 675.

In sum, the costs incurred by MAC were reasonable and appropriate and should be reflected in rate case expense.

The Company's application of a four-year normalization period of rate case expense is also reasonable and consistent with Department precedent. See Fitchburg, D.T.E. 98-51 at 54.

The Department has determined that the appropriate method for determining the normalization[73] period is to take the average interval between the filing dates of the Company's last four rate cases, including the case at hand. Id. In obtaining the average, the total number of years in the span between the first and last cases is divided by the number of intervals, rather than the numbers of cases, during that span. Id.

As a result of the long nine-year period between this rate case and the Company's last rate case, the Company used the average interval between its last five rate cases, rather than four, in order to normalize the average interval. See Exh. BG-6 (Sched. JJK-37). The Company's last five rate cases were filed in 1985, 1988, 1989, 1992 and 2001, respectively, resulting in a four-year average interval over which the rate case expense was normalized. Even if the formula set forth in Fitchburg were strictly followed by the Department in the present rate case, the average interval would still be four years (13 years divided by 3 intervals = 4.33 years). As a result, twenty-five percent of total rate case expense should be included in the Company's cost of service. For the foregoing reasons, this number is reasonable and appropriate, in full compliance with Department precedent.[74]

The application of the four-year normalization factor is consistent with the Company's "cast off" rate presentation. The Company demonstrated that, absent the merger, it would not be able to commit to the PCM and its 10-year rate case "stay out." See Section II. E. The use of "stand alone" costs is the only opportunity to recover merger-related costs. Thus, the Department should recognize that, on a stand alone basis, one-quarter of rate case expense

[73] The Department notes that the term amortization is sometimes used interchangeably with the term normalization. Fitchburg Gas, D.T.E. 98-51, p. 54.

[74] As noted in the record, the Company will be supplying detailed information on actual rate case expense.

should be reflected in cost of service as the Company would be likely to file another case within, on average, four years. The standard in Boston Gas, D.T.E. 96-50 at 78, does not apply. In Boston Gas, the Department further directed that "where the term of an initial price cap plan exceeds the average period between a company's three most recent rate cases, the Department shall employ the term of the price cap plan in establishing a normalization period for rate case expense." Boston Gas, D.T.E. 96-50, p. 78. In Boston Gas, however, the Department was not seeking to develop "stand alone" rates due to a merger. The PCM Plan is not merely a PBR plan, but also an opportunity to recover merger-related costs. Accordingly, the Department should accept the Company's rate case expense proposal. The cost schedules included with the reply brief will include a normalized rate case expense.

**k. Inflation Adjustment**

The Company calculated an inflation adjustment in a manner consistent with the Department's decision in Boston Gas, D.P.U. 96-50 (Phase I), pp. 111-113. The Company presented appropriate documentation and simply proposed to adjust operations and maintenance to the mid-point of the rate year. Exh. BG-5, p. 28; Exh. BG-6, Sched. JJK-36. This calculation is wholly consistent with Department precedent for a case implementing a rate plan such as the PCM.

The Attorney General does not challenge the method or results of the calculation. Instead, the Attorney General merely states that the Company has not described all the cost containment measures that have been implemented. AG In. Br., p. 41. The Attorney General cites, among other cases, the Department's consideration of the inflation adjustment in Fitchburg Gas & Electric Light Company, D.T.E. 98-51. The Department's findings with respect to the approval of the inflation adjustment in that case were as follows:

> The Company has decreased both health care expenses and life and long-term disability insurance expenses. In addition, the fact that the Company has not sought a base rate case in fourteen years is some evidence that it has contained costs. Therefore, with the exception of rate case expenses discussed above, the Department finds that the Company has shown it has effectively contained costs.

Id., at 100-01 (citations omitted). The Company's evidentiary presentation shows that this standard has been readily satisfied by the Company. The Company has not filed a rate case for more than nine years and has borne the burden of a substantial necessary plant investment at the end of such period. Exh. BG-1, p. 11. The Company has pursued aggressive supply planning efforts, including load management, contract restructuring, DSM and facility development, all with the aim of containing or reducing costs. Id. at 9-11. The Company has been aggressive in seeking commodity cost reductions, pursuing asset management and innovative alliance structures. Berkshire Gas Company, D.T.E. 99-76 (1999); Berkshire Gas Company, D.T.E. 01-41 (2001). The Company has reduced its staff size through cross training and strategic investments. Indeed, non-union labor costs are lower than at the time of the Company's last rate case nine years ago. See Section III. C.3.a., supra. The Company has been aggressive in addressing health care costs, both in terms of benefit plan structure and implementing employee co-payment requirements. See Section III. C.3.b., supra. The Company has also pursued investments in technology to reduce costs and increase customer service. The record contains numerous other examples of cost containment efforts.

In sum, the Company has fully satisfied the Department's standard with respect to the proposed inflation adjustment. Accordingly, the Department should approve the adjustment shown in Schedule JJK-36.

### l. Depreciation

#### i. General

The Company has presented a thorough, detailed, and well-documented depreciation study in this proceeding establishing that the appropriate composite annual accrual rate is 3.47%, which translates to a total dollar amount of depreciation to be included in the Company's cost of service of $4,005,000, based on plant investment as of March 31, 2000.[75] Exh. BG-13, p. 6 & Report,[76] pp. 15-16. This composite annual accrual rate is significantly lower than the 4.04% accrual rate proposed by the Company and accepted by the Department in the Company's last rate case. See Berkshire Gas Company, D.P.U. 92-210 (1993), pp. 71-72. Application of this lower accrual rate to the current plant balance of $111,115,813 results in a total accrual that is approximately $612,000 lower than would be the case were the 4.04% rate applied. Exh. BG-13 Report, p. 15.

Mr. James H. Aikman, the Company's expert depreciation witness, prepared the study. Mr. Aikman's approach was essentially the same approach as he has used in previous studies he has prepared and which have been accepted by the Department. See, e.g., Berkshire Gas

[75] Although the Company's test year ended December 31, 2000, the depreciation study was conducted during the summer of 2000. According to the Company's expert depreciation witness, updating the study through year end 2000 – indeed, even including an additional year or two of data – seldom produces noticeably different life analysis results, particularly in the case of long-lived gas utility property. Exh. BG-13, p. 4. Moreover, there were no material changes to plant balances between March 31, 2000 and December 31, 2000. Compare Exh. BG-14, Tab 1, pp. 4-5 (Schedule of Indicated Remaining Life Accrual Rates showing plant balances as of 3/31/00) with Supplementary Materials, Vol. I, Tab 5, DTE Return for Year Ended December 31, 2000, pp. 17-18. Indeed, when Mr. Aikman updated his study with respect to Account 305, Structures and Improvements, to reflect both the plant balance and book reserve balance through December 31, 2000, the composite accrual rate of 2.28% remained unchanged. See AG-RR-17.

[76] Citations to "Report" are to Mr. Aikman's letter to the Company of September 11, 2000, which appears at BG-13 appended to his pre-filed testimony and which sets forth the findings of his study.

Company, D.P.U. 92-210 (1993); Berkshire Gas Company, D.P.U. 1490 (1983); Eastern Edison Company, D.P.U. 1580 (1984); Commonwealth Gas Company, D.P.U. 87-122 (1987); Boston Gas Company, D.P.U. 88-67 (1988); Commonwealth Electric Company, D.P.U. 88-135/151 (1989); Commonwealth Electric Company, D.P.U. 90-331 (1991). Mr. Aikman has appeared before the Department, as well as other state commissions, many times, and his experience and credentials as a well-qualified expert have repeatedly been established. Indeed, the Department has praised depreciation studies that Mr. Aikman has prepared for other Massachusetts utilities as thorough and well-documented. See, e.g., Boston Gas Company, D.P.U. 88-67, p. 159. The Department has found Mr. Aikman to be a "well-seasoned expert in the field of depreciation" and that he possesses "an appropriate understanding of the results generated by his computer program and possesses the engineering knowledge and experience appropriate to interpreting those results." Commonwealth Electric Company, D.P.U. 90-331, p. 52.

The Department has also commended Mr. Aikman for his "conservatism" in making changes between depreciation studies, that is, for avoiding unwarranted overreaction to swings in indicated average service lives that may prove ephemeral and/or spurious. Boston Gas, D.P.U. 88-67, pp. 159-60. Such praise is well-deserved, as Mr. Aikman's current study reveals several instances in which he declined to adjust recommended average service life estimates to the extent that a slave-like devotion to actuarial analyses alone would otherwise indicate. See, e.g., Exh. BG-13, Report, pp. 6-9 (reflecting modest proposed change in Account 311 from 27 to 30 years; declining to adjust estimate for Account 366.20 downward from 40 to 28 years; and declining to adjust estimate for Account 367 downward from 60 to 56-59 years). Moreover, Mr. Aikman employs this conservatism in both directions by maintaining average service lives at a higher level, thereby resulting in a lower remaining life accrual rate for a particular account. For example, Mr. Aikman declined to adjust downward his estimate of a 40-year average service life for Account 366.20, notwithstanding that an actuarial analysis of the last 38 years of retirement activity indicated a 28-year average service life. Exh. BG-13, Report, p. 8.

A comparison from one study to the next frequently reveals the wisdom of Mr. Aikman's conservatism. For example, in his 1991 study Mr. Aikman recommended a 60-year average service life for Account 367 (Mains) notwithstanding that the actuarial life analyses indicated average service lives of 41 to 54 years; the actuarial analyses for this account for the current study indicated average service lives of 56 to 59 years, vindicating Mr. Aikman's reluctance to change his recommendation in the earlier study based on a particular swing in results from the actuarial analyses. Compare AG-RR-16 (Bulk), 1991 Depreciation Study, p. IV-6, with Exh. BG-13, Report, p. 9.

Given that a significant degree of expert judgment is required in depreciation studies, it is important to rely on an expert with such impressive qualifications, experience in the industry, and substantial familiarity with the Company, its property and its practices, who has performed all of the Company's depreciation studies for approximately the past twenty years. See Exh. BG-13, pp. 1-2; Tr. 10, pp. 1125-26; see also Fitchburg Gas, D.T.E. 99-118, p. 50; Fitchburg Gas, D.T.E. 98-51, p. 77, p. 78 n. 76; NYNEX Price Cap, D.P.U. 94-50, p. 351; Berkshire Gas Company, D.P.U. 19580, p. 19 (1978). At the same time, while expert judgment is a critical ingredient of any depreciation study, Mr. Aikman's expert conclusions are also based on sound engineering and statistical methodologies. Exh. BG-13 Report, passim.

Here, the Department should accept Mr. Aikman's analysis of the Company's depreciation adjustments.

### ii. Description of the Company's Depreciation Study

#### A. Compilation of the Data Base

Mr. Aikman began his depreciation study by updating the existing depreciation study data base, which Mr. Aikman had last updated as of December 31, 1991 in connection with Berkshire Gas, D.P.U. 92-210. Exh. BG-13, p. 3. This updated information included the Company's annual plant additions, retirements, adjustments and transfers, resulting in an actuarial data base with all survivors and retirements segregated into their constituent vintages. Id.

In addition to reviewing the Company's actuarial data base, Mr. Aikman personally visited and inspected Company above-ground property and consulted with Company management to obtain a better understanding of the overall system and equipment. Exh. BG-13, pp. 3, 6 & Report, p. 2. These actions are consistent with the Department's explicit recognition that "it is important to go beyond accounting information to examine the underlying physical assets. . . ." Lowell Gas Company, D.P.U. 19037 (1977), p. 20; Massachusetts Electric Company, D.P.U. 200 (1980), p. 21. Here, Mr. Aikman spent two days meeting with Company personnel and inspecting Company property, including the new Whately LNG plant, all of the natural gas take stations, four LPG plants, various structures and improvements, office furniture and equipment, and other General Plant Equipment. Exh. BG-13, p. 6 & Report p. 2; Exh. BG-14, Tab 5, pp. 6-10. This process both enabled Mr. Aikman to view the Company's equipment carefully and to discuss the equipment thoroughly with a Company representative. Id.

#### B. Actuarial Life Analysis

Mr. Aikman next conducted actuarial life analyses for each category of Company plant based on the foregoing data base. Exh. BG 13, p. 3-4 & Report, pp. 6-14. The Company has a good property history because all of the data is actuarial, meaning that the Company's records show the age at retirement of retired property and the ages of all surviving property. Exh. BG-13, p. 4. Thus, Mr. Aikman was able to use historical experience with the Company's property to generate starting points for the life estimation process, much as insurance actuaries do with human mortality experience in the life insurance industry. Exh. BG-13, p. 4. The study employed the annual rate or retirement rate method, performing separate actuarial analyses with respect to the various data sets. Exh. BG-13 Report, p. 2. Whenever beneficial, Mr. Aikman analyzed multiple bands of retirement experience. See Exh. BG-14, Tab 4, pp. 1-5; Tr. 10, pp. 1147-48.

### C. Engineering Experience

In addition to the statistical analyses, Mr. Aikman conducted an engineering evaluation, employing his considerable expert judgment and the information he obtained from Company personnel regarding the physical plant and procedures. As Mr. Aikman explained, he:

> [A]nalyzed the historical data and . . . evaluated the output by considering the indications from those life analyses, input from the Company management, the character of the depreciable assets, knowledge gained during property inspections, [his] experience with like assets, and engineering judgment.

Exh. BG-13, p. 3.

This is the most appropriate methodology for conducting depreciation studies and was expressly endorsed in the studies referred to in Mr. Aikman's testimony. Exh. BG-13, pp. 4-5. Indeed, the Department itself has, on numerous occasions, explicitly recognized that a depreciation study should rely not only on statistical analysis, but also on judgment and expertise. E.g. Fitchburg Gas, D.T.E. 99-118, p. 50; Fitchburg Gas, D.T.E. 98-51, pp. 77, 78 n. 46; Berkshire Gas, D.P.U. 92-210, p. 71; Bay State, D.P.U. 92-111, pp. 121-23; Commonwealth

Electric Company, D.P.U. 89-114/90-331/91-80, p. 54-55 (1991); Berkshire Gas, D.P.U. 905, pp. 13-15 (1982).

Indeed, failure to employ judgment would lead to senseless results in some circumstances. As Mr. Aikman testified before the Department, a simple visual inspection of the plots of computer-fitted Iowa curves as against the observed data frequently reveals the computer-generated curve to be a poor fit, and accordingly results in unrealistic and non-sensical average service life estimates. See, e.g., Tr. 10, pp. 1153-54, 1183-89; see also Exh. BG-13, Report, pp. 2-3. In particular, in cases where the actuarial analysis produces long estimates of average service life for particular accounts, visual inspection of the plotted data frequently shows that the computer-generated Iowa curve failed to follow significant deflections, or downward bends, in the observed values that would suggest shorter average service lives are indicated. See Tr. 10, pp. 1187-88. As Mr. Aikman explained, it is particularly important to consider the nature of the assets in the account in question in assessing whether the actuarial analyses are producing realistic results. Tr. 10, pp. 1185-86.

The exercise of Mr. Aikman's nonpareil judgment and experience was particularly critical with respect to the new Whately LNG Plant, given that there was no prior history to consider. See Tr. 10, pp. 1107-08. As Mr. Aikman explained, however, he has had significant prior experience with LNG facilities of other firms. See Exh. BG-13, p. 7. Based on that experience and his 34 years of experience in general in conducting depreciation studies, Mr. Aikman undertook a careful analysis of the various components of the Whately facility, estimating separately the average service life of each component. Exh. BG-13, p. 7; Exh. BG-14, Tab 4, p. 4; Tr. 10, pp. 1099-1100, 1107-08. By dollar-weighting the average service life estimates thus derived for the constituent components of this facility, Mr. Aikman determined that, with respect to the portion of the Whately plant assigned to Account 305, the appropriate life accrual rate is 2.51%. Exh. BG-13, Report, p. 6.

### D. Net Salvage and Cost of Removal Analysis

Mr. Aikman also determined net salvage values and costs of removal at retirement for the Company's depreciable plant and incorporated these values into the annual depreciation accrual rates. Exh. BG-13 Report, p. 3. To the maximum extent possible, the Company's actual recorded experienced salvage and removal costs were related to the retirements to develop annual and composite net salvage percentage values. Id.; see also, e.g., id., pp. 9-11 (Accounts 367, 369.00, 380, 381). With respect to propane-air plants, Mr. Aikman relied on a prior study in which engineers who specialize in the design and construction of propane-air plants in New England developed estimates of the relevant salvage and removal costs. Exh. BG-13, Report, p. 3.

### iii. The Attorney General's Arguments

The Attorney General argues that Mr. Aikman's average service life estimates should be increased with respect to three accounts. AG In. Br., pp. 82-86.[77] The Attorney General is wrong in each instance.

First, the Attorney General argues that, rather than use the dollar-weighted average of the average service lives of the constituent components of the Whately LNG Plant to develop an average service life for the Whately Plant, Mr. Aikman should simply have used the 40-year average service life that he developed for the non-Whately property in Account 305. AG In. Br., pp. 82-83. The Attorney General provides no authority for the proposition that, in determining

[77] The Attorney General also suggests that the Company should be required to account for the lives of its mains and services according to the materials of which they are made. AG In. Br., p. 84.

the average service life for a new investment, a utility is bound to use the average service life developed for other property in the same account. Tellingly, the Attorney General does not take issue with any particular component of Mr. Aikman's analysis, nor does the Attorney General argue that a 34-year average service life for the Whately Plant is objectively unreasonable. Accordingly, the Department should reject the Attorney General's contention that this estimate should be increased to 40 years simply because that is the estimate for the remainder of the property in Account 305.

Second, and similarly, the Attorney General argues that, rather than the 24-year average service life estimate that Mr. Aikman developed for the Whately LNG gas mixing equipment in Account 319.10, Mr. Aikman should have used the 25-year estimate derived for the other gas mixing equipment in that account. AG In. Br., pp. 83-84. In so arguing the Attorney General contends, incorrectly, that "Mr. Aikman relies on the overall 25-year actuarial life analysis results of all of the units of property at the old non-Whately plant in Account 319.10 as the starting point of his analysis of the Whately Facility." Id., p. 83. In fact, however, even a cursory examination of the relevant workpapers belies this inaccurate contention. The average service life estimates of the various components of the Whately Plant assigned to Account 319.10 are all set forth on the third page of Tab 2 of Exhibit BG-14. Not only is a 25-year estimated life not the "starting point" of the analysis, but nowhere in the list of estimated average service lives for the 35 items in that account does an average service life of 25 years appear even **once**. See Exh. BG-14, Tab 2, p. 3. Moreover, and in any event, there is no more basis here than there was with respect to Account 305 for the notion that, rather than determine an accurate average service life for the Whately Plant property in this account, the Company was bound to use an estimate for different property simply because it was there.

Finally, the Attorney General argues that, rather than use the 38-year estimated average service life for Account 380 (Services), the Department should use the 45-year average service life it deemed appropriate for a different utility in a different proceeding some three years ago. AG In. Br., pp. 84-86. The rationale for this treatment is that the Company purportedly suffered services with defective materials to be installed without taking appropriate action to recover the costs associated with those defective services. Id. First, these services have been included in the Company's rate base for years, and the notion that suddenly they should be depreciated differently as imprudent investments is contrary to Department precedent. Cf., e.g. Berkshire, 92-210, p. 22 ("The Department will not allow relitigation of the prudence, or used and usefulness of an investment once it has been included in rate base."). Second, there is nothing even approaching a sufficient basis in this record for the Attorney General's contention that the Company has acted imprudently with respect to these services. Third, the notion that an average service life developed for somebody else's property pursuant to somebody else's depreciation study should be used as a "proxy" in another case flies squarely in the face of logic.

Accordingly, the Department should reject the Attorney General's arguments and should adopt the accrual rate proposed by the Company.

### 4. Allocation of Costs to Non-Utility Affiliates or Operations

The Company presented comprehensive, well-documented and clear analyses of its efforts to allocate costs properly to non-utility operations performed within the Company and certain expenses associated with services to affiliated non-utility operations. Exh. BG-5, pp. 12-13; Exh. BG-8; Exh. BG-9. After extensive review, the Attorney General has proposed only very limited adjustments to such allocations. Specifically, the Attorney General has suggested that a portion of computer lease expense be allocated to certain non-utility functions. AG In. Br.,

p. 42. The Attorney General bases this argument on the premise that because some portion of the Company's information systems ("IS") personnel costs are allocated to these functions, somehow the costs of the Company's computer system must be allocated similarly. Id.

This argument ignores the record evidence. First, Propane and Service maintain "their own computers systems and they generate their own billing, deliveries, receivable, customer records and other daily operations. . . ." Exh. BG-8, p. 16; Exh. BG-9, Supp. Sched. NU-B. In addition, the costs associated with merchandising and jobbing are immaterial and, as described by Mr. Kruszyna, are being phased out and removed from the Company. Tr. 14, pp. 1626-27. Thus, any allocation of computer lease expense to these operations would not be representative of costs expected to be incurred during the rate year. Id.

In sum, the Company's allocation of computer lease expense reflects actual usage and the fact that non-utility affiliates maintain their own distinct computer equipment. Accordingly, the Department should approve the Company's treatment of computer lease expense.

### 5. Capital Structure And Rate Of Return

#### a. General

The Department has long recognized that a utility is entitled to a return on common equity that is sufficient to preserve the utility's financial integrity, that enables the utility to attract capital on favorable terms, and that permits the utility to realize earnings on a par with investments of comparable risk. See Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923); Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1942); see also Fitchburg Gas & Electric Light Company, D.T.E. 99-118 (2001), p. 78. The Company's proposed rate of return on equity reflected in the Company's cast off rates in this proceeding is consistent with that standard.

The requested rate of return on equity is supported by the detailed analysis and testimony of the Company's expert on rate of return on equity, Mr. Paul R. Moul, Managing Consultant of P. Moul & Associates, a nationally-recognized consulting firm. Exh. BG-10, p. 1. In his analysis, Mr. Moul has employed the basic approach the Department consistently has endorsed, i.e., he has applied the Company's weighted average cost of investor-provided capital to the Company's rate base to compensate investors fairly for the use of capital. Exh. BG-10, p. 2. Using this approach, Mr. Moul has determined that the Company's cast off rates should be set to reflect an overall rate of return of 10.25% and a return on common equity of at least 12.50%. Among the considerations warranting this treatment, as more fully set forth below, are the Company's weak financial position and its relatively high financial risk, even as compared to other gas distribution firms.

Another factor warranting the proposed return on equity is the Company's exemplary performance in achieving efficiencies, which enabled it to refrain from seeking to increase its base rates for almost nine years. See, e.g., Exh. BG-1, pp. 9-10. For example, during that period the Company instituted a comprehensive employee cross-training program that both rendered its staff more flexible and responsive and resulted in significant cost savings. Id., p. 10. The Company has also, among other things, implemented automated meter reading; optimized upstream resources through utilization of asset management arrangements; reduced the overall number of employees by some twenty percent; reshaped health care benefits to reduce costs, including by requiring employee contributions; implemented technologies to reduce costs and/or improve service; and outsourced selected activities. Id.; Tr. 2, pp. 162-63. The Department should reward such exemplary management by approving a rate of return that will enable the Company to continue its excellent work.

In so doing, the Department should recognize the fundamental distinctions between the Company and the Fitchburg Gas & Electric Light Company ("Fitchburg"), which was the subject of a recent Department order. See Fitchburg Gas & Electric Company, D.T.E. 99-118 (2001). In particular, the Department should recognize that the Company has significantly more risk than does Fitchburg. For example, Berkshire is a gas-only utility, which readily distinguishes it from Fitchburg, a combination gas and electric company. Moreover, the Company's rate-setting capitalization – $78 million – is significantly less than Fitchburg's $96 million. Fitchburg Gas, D.T.E. 99-118, p. 99 (Sched. 5); Exh. BG-12, p. 10 (Sched. 5). Also, unlike Fitchburg, in this case, Berkshire is proposing a long-term price cap plan with significant risk to the Company if it can not generate efficiencies. Last, Berkshire's exemplary management efforts merit the Department's consideration. Accordingly, the Department should determine Berkshire's cost of equity based on the record in this case and the careful analysis of Mr. Moul, without regard to the result reached in Fitchburg regarding its electric rates.

**b. Relevant Factors in Setting Cost of Capital**

Under traditional cost-of-service regulation, an agency such as the Department serves as a substitute for competition. Exh. BG-11, p. B-1. In setting rates, the agency must consider carefully the public's interest in obtaining both reasonably priced and safe and reliable service. Id. The level of rates must also provide the utility and its investors the opportunity to earn a rate of return commensurate with the risk to which the invested capital is exposed in order that the utility will have access to the capital required to meet its service responsibilities to its customers. Id. Absent a fair rate of return, a utility would be unable over time to attract capital sufficient to meet these responsibilities. Id.

As established by the Bluefield and Hope cases cited above, several tests must be satisfied in order to ensure a fair rate of return, including whether the rate of return is (i) similar to that of other, financially-sound businesses having comparable risks; (ii) sufficient to ensure confidence in the financial integrity of the utility; and (iii) adequate to maintain and support the utility's credit, thereby enabling the utility to attract, on a reasonable cost basis, the funds necessary to satisfy its capital requirements so that it can provide adequate and reliable service. Exh. BG-11, pp. B-1-2. In addition to providing the ability to attract credit in the future, a fair rate of return must also, among other things, enable the utility to service its existing debt, pay dividends on the utility's stock, recover the costs of securing capital, provide a reasonable level of earnings retention, be commensurate with the risk to which the utility's capital is exposed, and support reasonable credit quality. Id.

#### i. Factors Influencing Credit Quality

The Company must have the financial strength that, at the very least, enables it to maintain a financial profile commensurate with the requirements for obtaining a solid investment grade bond rating. Exh. BG-10, p. 6. Having a strong credit quality is essential to giving a utility the necessary flexibility to attract capital on reasonable terms during all economic conditions. Exh. BG-10, p. 7. The proposed overall rate of return of 10.25% would afford the Company the opportunity to attain such a credit quality profile. Exh. BG-10, p. 8. Although the Company does not have a public rating on its securities issued through private placement, it must be in a position to support the credit quality equivalent to the investment grading used in the private placement market as established by the National Association of Insurance Commissioners ("NAIC"). Id. at 6. At present, the Company has a "2" designation under the NAIC system, which corresponds to a Baa/BBB bond rating. Id. As Mr. Moul indicates, the

Department should set rates at a level that, among other things, will enable the Company to achieve a "1" designation in the NAIC system, which corresponds to a stronger, A credit quality rating. Id. Indeed, Mr. Moul's Barometer Group has the equivalent of a "1" designation in the NAIC system, as shown by their A credit quality. See Exh. BG-10, p. 17. Berkshire should be afforded the same opportunity to achieve a financial condition comparable to the Barometer Group.

#### ii. **General Risk Factors Associated With Natural Gas Distribution**

A number of factors have contributed to the risk generally confronting natural gas distributors, such as the Company. First, gas supply fundamentals have changed dramatically as a result of FERC Order Nos. 436, 500, and 636, whereby the pipeline industry was restructured. Exh. BG-10, p. 8. By increasing the competitiveness of the natural gas business, these changes have also increased the risk for the gas distributors. Exh. BG-10, p. 9. Not only does natural gas face significant competition from alternative energy sources, but natural gas distributors such as the Company also now face a significant risk that their systems will be bypassed. Id.; Exh. BG-22, p. 15 (noting prospect of bypass by larger customers as major threat to Company). Additional risk inheres due to the uncertain volume consumed by dual-fuel customers. Exh. BG-10, p. 9; Exh. BG-22, p. 15. While the new unbundled rates render the Company neutral with respect to the cost of gas, gas supply costs remain of crucial importance, and the Company must have the pricing flexibility sought in this regard in the proposed PCM in order to retain its large customers. Exh. BG-22, p. 15. Other factors contributing to the uncertainty and risk in the natural gas business include the ongoing restructuring of the electric utility business and the resulting heightened competitive pressure. Exh. BG-10, p. 10.

In addition, among the many sweeping changes that the FERC Orders have wrought is the so-called straight fixed variable, or "SFV," pipeline rate design. Id. at 8-9. The SFV rate design has, among other things, increased rates to low load-factor customers, such as residential customers, although this risk is ameliorated by unbundling. Id.

### iii. Risk Profile of the Company

In addition to the risk factors generally applicable to gas distribution firms, several factors demonstrate the risk of the Company, in particular. As Mr. Moul demonstrates, the Company faces competition in all sectors of its markets. Exh. BG-10, p. 12. For example, the Company's deliveries to commercial, industrial, and transportation customers represent about 66% of throughput, but they represent only about 13% of total customers. Id. Such large customers traditionally are those most likely to switch fuels or bypass the Company's distribution system. Id.; see also, e.g., Exh. BG-22, p. 15. Success with such customers also is subject to such factors as the business cycle and competitive pressures on the customers' operations from outside the Company's service area. Exh. BG-10, pp. 12-13. Indeed, the Company recently confronted precisely such pressures with its second-largest customer. Tr. 3, pp. 263-65. This customer, whose firm throughput had been 900 Mcf per day, is struggling financially and recently represented that, unless the Company agreed to reduce its daily usage to 700 Mcf, it would be forced to switch to oil. Id. Because the customer still would be providing significant margins to the Company which would redound to the benefit of all customers, the Company acceded to the request, but the net impact was an unanticipated reduction of $90,000 in annual revenues. Id.[78]

[78] The Company has proposed to adjust test year revenues for this factor, and such adjustment will be reflected in the cost schedules provided with the Company's reply brief.

The Company's residential customers also contribute to the Company's risk profile. Exh. BG-10, p. 13. Approximately 79% of the Company's residential customers use natural gas for heating, a circumstance that subjects the Company's revenues to weather abnormalities. This is particularly so with respect to seasonally differentiated rates, because the margins on interruptible sales may not be fully available to offset low sales to firm customers in the event of abnormally warm weather. Id.[79] The Company also faces competition in the residential market from alternative fuels such as oil and electricity. Id. The Department's change in policy on LBR attributable to DSM has also contributed to an increase in the variability of the Company's cash flow and earnings, and hence its risk. Id.

The Company also must undertake investment to maintain and upgrade existing facilities and to provide for growth. Exh. BG-10, p. 14. Indeed, with approximately 32% of both its distribution mains and services constructed of unprotected steel or cast iron, the Company will need to increase its construction expenditures over the next five years, with capital expenditures expected to total nearly $30 million. Id. Owing to an innovative design, the Whately plant provides for the deferred addition of storage capacity, and the Company plans to construct additional tanks as needed during the term of the PCM. Id.; see also Berkshire Gas, D.T.E. 99-17/EFSB 99-2, p. 19. The costs of these major projects will represent capital that is at risk through the Company's PCM plan, and thus the Company's cast off rates must be set at a level that affords the Company a reasonable opportunity to achieve its cost of capital. Exh. BG-10, pp. 14-15; BG-22, p. 8.

---

[79] The Company has proposed annual rates for a number of its lower use customers. BG-22, pp. 25-26.

### iv. **<u>Fundamental Risk Analysis</u>**

In addition to describing the qualitative factors contributing to the Company's risk profile, Mr. Moul also employed a quantitative risk analysis to establish the Company's relative risk position within the industry. Exh. BG-10, p. 15; Exh. BG-11, pp. C-1-C-3. In particular, Mr. Moul compared the Company to the S&P Public Utilities, a widely-recognized index comprising twenty-eight electric power companies and eleven natural gas companies, and to the "Barometer Group," a group of natural gas companies selected by Mr. Moul based on a comprehensive set of criteria.[80] Exh. BG-10, p. 16; Exh. BG-12, pp. 8-9 (Sched. 4, pp. 3-4). This exercise established quantitatively that the Company's business risk is high.

One comparison that Mr. Moul undertook was with respect to bond ratings. Exh. BG-10, pp. 16-17. As noted, while the Company does not have a public rating on its securities, its credit quality designation of "2" in the rating employed by the NAIC corresponds to a Baa/BBB bond rating category. Exh. BG-10, p. 6. By comparison, the average corporate credit rating for the Barometer Group is A from S&P and A2 from Moody's, and the average ratings for the S&P Public Utilities is A- from S&P and A2 from Moody's. Exh. BG-10, p. 17. These ratings signify not only a company's credit quality risk: because a company's cost of equity represents its borrowing cost plus additional compensation to reflect the higher risk of <u>equity</u> investment versus debt, these ratings also bear on the company's cost of <u>equity</u>. Exh. BG-10, p. 17.

Mr. Moul also compared financial data for the Company, the Barometer Group, and the S&P Public Utilities, and again determined that, in many respects, the Company's risk is higher.

---

[80] Mr. Moul selected companies possessing the following characteristics: (i) they are contained in Edition 3 of either the "basic" or "expanded service" of <u>The Value Line Investment Survey</u> in the Natural Gas Distribution industry group; (ii) they operate in the Northeastern, Great Lakes, and Southeastern regions of the country; (iii) their stock is traded on the New York Stock Exchange; (iv) they have not cut or omitted their dividend; and (v) they are not currently the target of a

First, in terms of capitalization, Berkshire is considerably smaller than the average member of the Barometer Group and the S&P Public Utilities. Exh. BG-10, p. 19. Because given changes in revenues and expenses have proportionately greater impact on smaller firms, a smaller firm tends to be riskier. Id.

Second, Berkshire's five-year average ratio of common equity to long-term debt and other senior capital, 43.9%, is significantly lower than the 51.3% figure for the Barometer Group. Exh. BG-10, p. 20. Because firms with lower common equity ratios tend to have greater financial risk, Berkshire is also more risky by this measure than the average member of the Barometer Group. Id.[81]

Another measure of risk is variability in a firm's earned returns, as reflected in the coefficient of variation of the rate of return on book common equity. Exh. BG-10, p. 20. For the five-year period ending with the test year, Berkshire's coefficient of variation – 1.317 – was much higher than that for either of the proxy groups: 0.119 for the Barometer Group, and 0.127 for the S&P Public Utilities. Exh. BG-10, pp. 20-21.

Berkshire also has a higher operating ratio – 88.2% – than either the Barometer Group (87.7%) or the S&P Public Utilities (82.8%). Exh. BG-10, p. 21; Exh. BG-12, pp. 2, 4, 6. Because this ratio represents the percentage of revenues consumed by operating expense, depreciation, and taxes other than income, the comparison again shows the Company to possess greater risk. Id.

Similarly, the Company's five-year average pre-tax fixed charge coverage (the multiple by which available earnings cover fixed charges, such as interest expense and preferred stock dividends) is, at 1.86 times, much lower than for the Barometer Group (3.46 times) and the S&P

---

merger or acquisition. Exh. BG-10, p. 16.

Public Utilities (3.00 times). Exh. BG-10, p.21; Exh. BG-12, pp. 2, 4, 6. Because a higher level of coverage corresponds to greater earnings protection for creditors, this measure, too, shows the Company to be relatively more risky. Id.

The Company also has a markedly lower five-year average percentage of internally-generated funds ("IGF") to capital expenditures – 58.0% – than does the Barometer Group (74.6%) and the S&P Utilities (120.0%). Exh. BG-10, p. 22; Exh. BG-12, pp. 2, 4, 6. The Company's relatively weak ratio of cash flow to construction is a further indication of higher risk. Id.

In sum, while the Company's risk profile is similar to that of the Barometer Group, there are several respects in which the Company's risk is markedly greater than that of the Barometer Group, due principally to the Company's relatively small size, its low common equity ratio, its far more variable earned returns, its far weaker interest coverage, and its lower cash flow. Exh. BG-10, p. 23. Thus, the Barometer Group's cost of equity, which does not compensate for the Company's greater risk, provides a very conservative measure of the Company's cost of equity. Id.

**c. Capital Structure**

**i. Description**

As in prior rate cases for the Company, Mr. Moul has used the Company's capital structure ratios for rate of return purposes. Exh. BG-10, p. 23. As Mr. Moul observed, because the Company obtains all of its senior capital from investors, and because, notwithstanding the formation of BER and the Energy East acquisition, the Company continues to be responsible for all of its debt issued directly to outside investors, the Company's capitalization should still be

[81] The S&P Public Utilities ratio of 41.8% is slightly lower than Berkshire's ratio. BG-10, p. 20.

used for rate of return purposes. Exh. BG-10, pp. 23-24; see also Berkshire Gas, D.T.E. 98-61/87, p. 18 (The Department held that the Company's cost of capital should continue to be established on a "stand alone" basis.).

Mr. Moul determined the Company's capital structure ratios for rate of return purposes to be 57.78% long-term debt, 0.33% preferred stock, and 41.89% common equity for the test year. Exh. BG-10, p. 25; Exh. BG-12, p. 10 (Sched. 5, p. 1). These ratios were calculated after first making a series of ratesetting and pro forma adjustments. Exh. BG-10, p. 24. Mr. Moul first made ratesetting adjustments to restate the Company's capital structure as it existed before the merger by reversing the journal entries relating to the merger. Id. While most of these entries merely reclassified amounts in the Common Stock account, the Premium on Common Stock account, and the Retained Earnings account, Mr. Moul also removed the goodwill recorded in the Company's equity account at the time of the merger. Id. The net result of these adjustments was to reset to zero the Other Paid-in Capital account and to restore the other equity accounts to their pre-merger condition. Id. These entries and adjustments are consistent with Mr. Kruszyna's treatment and analysis. See Exh. BG-5, p. 15; Exh. BG-6, Sched. JJK-14, p. 2.

Mr. Moul also made a ratesetting adjustment to remove the impact of merger-related entries on the Retained Earnings account. Exh. BG-10, pp. 24-25. Specifically, Mr. Moul removed from this account costs totaling $5,176,353 for the funding of officers' supplemental executive retirement plan, reserve for medical-officers retirement, investment banker fees, and trustees pension; adjusted this total amount for taxes; and then restored the resulting amount – $3,194,327 – to Retained Earnings. Exh. BG-10, p. 25. Again, this is consistent with Mr. Kruszyna's treatment. Exh. BG-5, p. 15; Exh. BG-6, Sched. JJK-14, p. 2 n. 5.

In accordance with Department precedent, Mr. Moul also made pro forma adjustments relating to principal repayments on debt and purchase offer on preferred stock that are expected to occur before year-end 2001, i.e., before the date of the Department's order in this case. Exh. BG-10, p. 25. The combination of these adjustments resulted in the capital structure ratios reported above. Id.; Exh. BG-12, p. 10 (Sched. 5, p. 1).

By applying this capital structure to the embedded cost of debt, the cost of the Company's preferred stock, and the cost of common equity, Mr. Moul determined the weighted average of the Company's cost of capital. Exh. BG-10, pp. 1-2; Exh. BG-12, p. 1 (Sched. 1, p. 1). Specifically, by applying the Company's embedded cost of long-term debt of 8.63%, Exh. BG-12, p. 11 (Sched. 6, p. 1), the cost of the Company's preferred stock of 4.98%, id., and the cost of common equity of 12.50%, Exh. BG-10, pp. 1-2, to the Company's capital structure, Mr. Moul determined that the Company's overall rate of return should be at least 10.25%. Exh. BG-10, pp. 1-2; Exh. BG-12, p. 1 (Sched. 1).

The Attorney General has not challenged the Company's capital structure ratios, and the Department should accept them. Similarly, other than the effective cost rates for two issues of debt discussed below, the Attorney General has not challenged the Company's proposed cost of debt and preferred stock, and they, too, should be accepted by the Department.

### ii. Embedded Debt Cost Calculation

#### A. Mr. Moul Correctly Calculated the Cost of Debt

Mr. Moul used the Company's senior capital cost rates to develop the cost of capital, relating the cost rates of long-term debt to the same proportion of senior capital used to derive the capital structure ratios. Exh. BG-10, p. 25.

Mr. Moul determined that, for the test year ended December 31, 2000, the pro forma cost of long-term debt was 8.63%. Exh. BG-10, p. 26; Exh. BG-12, p. 11 (Sched. 6, p. 1). The details leading to Mr. Moul's development of the individual effective cost rates for each series of long-term debt, in which he employed a non-material modification of the procedure adopted by the Department in Berkshire Gas, D.P.U. 92-210,[82] appears at page 2 of Schedule 6 to Mr. Moul's pre-filed testimony in this case. Exh. BG-10, p. 26; Exh. BG-12, p. 12 (Sched. 6, p. 2). With respect to the KeyBank note used to finance the Whately LNG tanks, Mr. Moul estimated the interest rate for the test year based on a LIBOR forecast appearing in the April 1, 2001 issue of Blue Chip Financial Forecast: Mr. Moul estimated the average LIBOR rate for the first, second, and third quarters of 2002 to be 4.63%, and then added a margin of 2.15% to derive the total interest rate payable to KeyBank of 6.78%. Exh. BG-10, p. 26; Exh. BG-12, p. 12 (Sched. 6, p. 2). Mr. Moul also factored in the expenses associated with the Company's early redemption through call/tender of previously outstanding high-cost debt and preferred stock, explaining the necessity of compensating the Company for the costs incurred in reducing the embedded cost of debt. Exh. BG-10, p. 26; Exh. BG-12, p. 12 (Sched. 6, p. 2).

Mr. Moul ultimately adopted the 8.63% embedded cost of long-term debt for rate of return purposes. Exh. BG-10, p. 26; Exh. BG-12, p. 11. This 8.63% debt cost rate is related to the amount of debt, which provides the basis for the 57.78% long-term debt ratio. Exh. BG-10, p. 26; Exh. Bg-12, p. 10 (Sched. 5, p. 1).

[82] As Mr. Moul testified before the Department, the modification simply moved the focus from calculating the cost of debt over the full length of the debt issue to the period between the test year and the date of maturity, but the two calculations produce essentially the same result. Tr. 5, pp. 561-62, 653-54; see also Exh. DTE 4-2.

## B. Attorney General Arguments

The Attorney General incorrectly argues that Mr. Moul's cost of debt calculation fails to comport with Department precedent. See AG In. Br., pp. 67-68. To the contrary, Mr. Moul's calculations follow generally the procedure set forth in the Company's last rate case. See Berkshire, D.P.U. 92-210, pp. 112-16. Indeed, as shown in Exhibit DTE 4-2, the Company's proposed cost rate produces precisely the same cost rate as does the formula adopted by the Department in the Company's last rate case. See Exh. DTE 4-2.

The key to the Department's approved method for calculating the cost of debt rests with the recognition that sinking funds reduce the available debt that a utility can invest in rate base. This is shown by the following data taken from pages 1 and 2 of Schedule 6 of Exhibit BG-12. The "Average Term of Issue" must be determined in order to follow the procedure that was used by the Department in Exhibit DPU 2-8 in Docket D.P.U. 92-210. Using the values shown in Schedule 6 of Exhibit BG-12, the "Average Term of Issue" is 2.71 years ($5,080,400 ÷ $5,155,400 = .985452 x 33 months = 32.52 ÷ 12 = 2.71) for the Medium Term Note due 09/30/2003 and is 15.905 years ($12,190,476 ÷ $16,000,000 = .761905 x 250.5 months = 190.86 ÷ 12 = 15.905) for the Senior Notes due 11/15/2021. With these data, the formula shown in footnote 2 of Exhibit DPU 2-8 in Docket D.P.U. 92-210 provides the following cost rates: 7.33% ($76,770 ÷ 2.71 average years = $28,328 ÷ $5,155,400 = 0.55% + 6.78%) in the case of the Medium Term Notes due 09/30/2003 and 8.49% ($1,766,364 ÷ 15.905 average years = $111,057 ÷ $16,000,000 = 0.69% + 7.80%) in the case of the Senior Note due 11/15/2001.

These calculations confirm three facts. First, they use the test year-end balance to calculate the effective cost of these series which complies with the Attorney General's argument. Second, they follow the calculation adopted by the Department in the Company's prior rate case.

Third, they clearly show that the Company's proposed cost of debt produces the exact same cost rate as the Department's formula would produce.

Accordingly, it would be wrong to adopt the proposal contained in the Attorney General's initial brief because said proposal fails to reflect the fact that sinking funds reduce the amount of debt that the Company has available for investment in rate base. See AG-RR-37. The Department has previously recognized this fact and has incorporated this into the Company's cost of debt. See Berkshire, 92-210, pp. 114-16 and discussion, supra.

Thus, it is the Attorney General's proposal, not the Company's cost of debt calculation, which runs afoul of Department precedent, and the Department accordingly should adopt the Company's proposed cost of debt.

**d. Cost of Equity Determination**

**i. General**

As an initial matter, the Company has demonstrated that Mr. Moul is eminently qualified, and his experience and credentials have not been challenged. See generally Exh. BG-11, App. A. Mr. Moul has specialized in financial analyses of the rate of return requirements of cost-of-service companies since 1974. Id., p. A-1. Mr. Moul has served as an expert witness on fair rate of return, as well as other financial matters, in a plethora of proceedings before the Federal Energy Regulatory Commission and 27 state utility commissions, including numerous cases before the Department. Id., pp. A-2-6. Mr. Moul's expertise is further evidenced by the articulate, well-reasoned analysis presented in his pre-filed testimony (Exh. BG-10), as well as by his further oral testimony before the Department (Tr. 5). Accordingly, the testimony and analysis of Mr. Moul – the only expert to offer any opinion on the appropriate rate of return in this proceeding – should be accorded great weight, in recognition of his exceptional credentials and experience.

As explained by Mr. Moul in his pre-filed testimony, the cost of equity must be measured through the use of multiple financial models, which include the Discounted Cash Flow ("DCF") model; the Risk Premium ("RP") approach; the Capital Asset Pricing Model ("CAPM"); and the Comparable Earnings ("CE") approach. Exh. BG-10, p. 27; Exh. BG-11, p. D-1. No single method or model of the cost of equity should be employed in an isolated manner; rather, because each model has inherent limitations – each employs incomplete and/or overly restrictive assumptions and constraints that are not optimal – it is important to consider the results derived through a variety of methods. Exh. BG-10, p. 27.

Mr. Moul placed primary emphasis in this proceeding on the DCF and RP approaches. Tr. 5, p. 563. Although the Department has, in the past, identified shortcomings in these models (see, e.g., Berkshire Gas, D.P.U. 92-210 (1993); Commonwealth Electric, D.P.U. 88-135/151 (1988); Commonwealth Gas Company, D.P.U. 87-122 (1987)), Mr. Moul's presentation in this case compensates for the limitations of each of these models by using them in tandem, as well as by verifying and supplementing their results through the use of the CAPM and the CE approaches.[83]

Of course, because it is never possible to ascertain precisely prospective investors' requirements, professional judgment must be brought to bear to interpret the results derived through use of the models. By so applying his professional judgment to the DCF and RP approaches, as verified and supplemented by the CAPM and CE models, Mr. Moul's

[83] While the Department has expressed concern that the RP analysis can overstate the cost of equity, the Department has recognized its value as a supplement to other ROE models, such as the DCF analysis. E.g., Fitchburg Gas & Electric, D.T.E. 99-118, p. 84.

determination that the Company's cost of equity should be at least 12.5% should be accorded great weight.

Finally, although, as discussed below, the Attorney General has attacked Mr. Moul's application of the various models used to measure the Company's cost of equity, the Attorney General has not challenged the inclusion of any company in Mr. Moul's eleven-company group of gas distribution companies that compose his Barometer Group. Hence, the Department should rely on the market evidence of the cost of equity shown by the results of the Barometer Group.

As to the Attorney General's suggested 9.84% cost of equity, see AG In. Br., p. 69, such a "single digit" return on equity is simply not credible and does not come close to compensating the Company for its equity risk. A rated public utility bonds provided a yield of 7.75% in September 2001; the three-month average yield was 7.71%; the six-month average yield was 7.82%; and the twelve-month average yield was 7.85%. An equity risk premium of 1.99% (9.84% - 7.85%) to 2.13% (9.84% - 7.71%), which is the premium suggested by the Attorney General's return on equity proposal, is clearly inadequate given the higher risk characteristics of Berkshire (see Exh. BG-10, pp. 8-15, 15-23) and the risks associated with the Company's PCM proposal, which includes an agreement by the Company to refrain from filing a base rate case for ten years.

**ii. Discounted Cash Flow Analysis**

**A. General**

The DCF model posits that the value of an asset is equal to the present value of future expected cash flows discounted at the appropriate risk-adjusted rate of return. Exh. BG-10, p. 28. The risk-adjusted rate of return on common stock includes a current cash dividend yield and future price appreciation of the investment. Id. The cost of equity based on the combination of these two components represents the total return investors can expect on an equity investment. Id.

Mr. Moul utilized the traditional "Gordon Model" formula that commonly is applied in estimating equity rates of return in rate cases:

$$K_s = \frac{D_0(1+g)}{P_0} + g$$

where "$K_s$" is the required annual rate of return on common equity, "$D_0$" is the most recent annualized prior period dividend per share, "$P_0$" is the current share price, and "g" is the expected dividend growth rate. See Exh. BG-11, p. E-3.

Two limitations inherent in the DCF model as applied in rate cases tend to produce results that do not fully reflect a utility's true risk. Exh. BG-10, p. 28. First, the exercise involves a degree of circularity as applied to regulated firms, since investor's future expectations depend on regulatory decisions that, in turn, look to investor expectations regarding those decisions. Id. Second, when stock prices diverge significantly from book values, the DCF model will understate the appropriate cost of equity, because the results of the DCF model, which are based on the market price of the stock analyzed, are being applied to a net original cost, or book value, rate base. Exh. BG-10, pp. 28-29. To account for this limitation, the DCF model can be appropriately modified, as discussed below. Id.

### B. Mr. Moul Correctly Calculated the Dividend Yield Component

As noted, one feature of the DCF model is the use of an expected dividend yield to establish the investor-required cost of equity. Exh. BG-10, p. 29. As Mr. Moul demonstrated in his pre-filed testimony, the average dividend yields for the Barometer Group were 4.98% for the twelve-month period ending March 31, 2001; 4.72% for the six-month period so ending; and

4.79% for the three-month period so ending. Exh. BG-10, pp. 29-30. Mr. Moul employed the six-month figure in order to reflect current capital costs while avoiding spot yields. Exh. BG-10, p. 30.[84]

Mr. Moul then explained that, because the DCF model is an expectational model that must reflect investor anticipated future cash flows for the Barometer Group, the dividend yield must be adjusted to reflect the prospective nature of the dividend payments, that is, the higher dividends anticipated for the future. Exh. BG-10, p. 30. Accordingly, Mr. Moul adjusted the six-month average dividend yield for the Barometer Group in three generally accepted ways[85] and used the average of the three results, or 4.90%. Exh. BG-10, p. 30; Exh. BG-11, App. E.[86]

### C. Mr. Moul's Growth Component is a Conservative and Reliable Estimate of Equity Investor Expectations

In determining the growth factor component of the DCF model, Mr. Moul cautioned that investors, in establishing market prices for a firm, do not behave in the manner assumed by constant growth rate models utilizing accounting variables, but instead consider overall market sentiment (e.g., inflation rates, interest rates, and economic conditions) in addition to company-specific variables. Exh. BG-10, p. 30. Accordingly, Mr. Moul sought to evaluate all relevant growth rate indicators with a variety of techniques rather than considering a single set of company-specific variables weighted in a formulaic manner. Exh. BG-10, pp. 30-31.

---

84 Mr. Moul updated this information through September 30, 2001 in response to a record request, and the six-month average – 4.72% – remained the same. See Updated Schedule 7, provided in response to AG-RR-10.

85 Specifically, Mr. Moul took the average of the adjusted dividend yield using the formula $D_0/P_0(1+.5g)$, the dividend yield recognizing discrete quarterly growth, and the quarterly compound dividend yield with discrete quarterly growth, as described in Appendix E to his pre-filed testimony. Exh. BG-11, pp. E-7-9.

86 The Department has previously acknowledged that adjustments to the dividend yield to account for expected growth in dividends and the time value of money is proper. See, e.g., New

In his determination of the appropriate growth factor, Mr. Moul referenced both historical performance and projected performance of the Barometer Group as set forth in widely-circulated, influential publications, namely, The Value Line Investment Survey ("Value Line"), Institutional Brokers Estimate System ("IBES"), Zacks Investment Research ("Zacks"), First Call/Thomson Financial ("First Call"), and Market Guide. Exh. BG-10, pp. 31-33; Exh. BG-11, App. E, pp. E-11-12; Exh. BG-12, pp. 13-16 (Sched. 7-9). In accordance with Department precedent (Western Massachusetts Electric Co., D.P.U. 86-280-A, p. 110), Mr. Moul referenced the historical performance of the Barometer Group over a five-year period, as well as including data for a ten-year historical period. Exh. BG-12, p. 14 (Sched. 8). Mr. Moul found that the historical growth rates in earnings per share ranged from 2.35% to 4.18% for the Barometer Group. Exh. BG-10, p. 31; Exh. BG-12, p. 14 (Sched. 8).[87]

Mr. Moul observed that the DCF model typically focuses on long-run estimates of earnings, although stock prices plainly are influenced by current and near-term earnings forecasts. Exh. BG-10, pp. 32-33. With respect to five-year forecast growth rates, the projected earnings per share growth rates for the Barometer Group as of March and April 2001 – the figures available when Mr. Moul completed his pre-filed testimony – were 6.82% by IBES, 7.12% by Zacks, 6.66% by First Call, 7.67% by Market Guide, and 8.67% by Value Line. Exh. BG-10, p. 33; Tr. 5, pp. 614-15. More recent projected earnings per share growth rates are mostly somewhat higher: as reflected in Mr. Moul's response to an Attorney General record request, the published forecasts as of October 23, 2001 were 7.00% by IBES, 7.34% by Zacks,

England Telephone Company, D.P.U. 86-33-G, p. 358.

[87] As Mr. Moul noted, the historical growth rates in earnings per share included some instances of negative values for individual companies within the Barometer Group, but such statistics should not be given any weight in formulating expectations for the future because rational investors always expect positive growth. Exh. BG-10, pp. 31-32.

7.03% by First Call, 7.17% by Market Guide, and 9.15% by Value Line. See AG-RR-10, Sched. 9 (Update).[88]

In addition, Mr. Moul observed in his pre-filed testimony that the Value Line projections indicated that earnings per share for the Barometer Group would grow prospectively at a more rapid rate than dividends per share, i.e., at a rate of 8.67% versus 2.78%. Exh. BG-10, p. 33; Exh. BG-12, p. 14. The updated forecasts reflect an even greater disparity: 9.15% versus 2.78%. AG-RR-10, Sched. 9 (Update). As Mr. Moul explained with the constant price-earnings multiple assumption of the DCF model, growth for these companies will thus occur at the higher earnings per share, thus producing the capital gains yield that investors expect. Exh. BG-10, p. 33.

Based on the historical performance and published forecasts, Mr. Moul determined that a company-specific growth rate of 7.00% is indicated for the Barometer Group, a figure comfortably within the forecast earnings per share growth rates. Exh. BG-10, p. 33. The dividend yield and growth rate determined by Mr. Moul accordingly would provide the following return for the Barometer Group:

$$D_1/P_0 + g = k$$

$$4.90\% + 7.00\% = 11.90\%$$

Exh. BG-10, p. 34.

As noted previously, however, this 11.90% figure fails to provide a complete representation of the cost of equity, given that the divergence of stock prices from book values creates a conflict when the results of a market-derived cost of equity are applied to the common equity account measured at book value in a rate setting context. Exh. BG-10, pp. 34-35; Exh.

88 Accordingly, Mr. Moul's DCF result, which has not been updated to reflect these higher forecast growth rates, is conservative.

BG-11, E-13-15. As Mr. Moul demonstrated, capital structure ratios measured at their book values show more financial leverage, and thus higher risk, than does the capitalization measured at market values. Exh. BG-10, p. 35; Exh. BG-11, App. E. This is because the capitalization of a utility measured at its book value contains relatively more debt and less equity than does the capitalization measured at its market value. It is a well-accepted precept of financial theory that a relatively higher proportion of debt in a firm's capitalization represents greater financial leverage, and hence greater financial risk, than does another capital structure more heavily weighted with equity. Exh. BG-10, p. 35; Exh. BG-11, E-13-14.

The necessary implication of the foregoing is that a market-derived cost of equity, using a model such as the DCF model, reflects a lower level of financial risk than that shown by the book value capitalization, and it thus is necessary to adjust the market-determined cost of equity upward to account for the higher risk related to the book value capitalization used in ratesetting. Exh. BG-10, p. 35.

As Mr. Moul explained, this upward adjustment can be made by reference to the pioneering work of Nobel laureates Modigliani and Miller, who developed several theories regarding the role of leverage in a firm's capital structure. Exh. BG-10, p. 36, n. 3. Among other things, Modigliani and Miller demonstrated that, as a firm's borrowing increases, the expected return on stockholder's equity also increases. Exh. BG-10, p. 35. Modigliani and Miller proposed several approaches for quantifying the equity return associated with varying degrees of debt leverage in a firm's capital structure. Id. These formulas point toward an increase in the equity return associated with the higher financial risk of the book value capital structure. Id.

With respect to the Barometer Group, that increased risk is reflected in the lower, 49.76% common equity ratio derived using book value as compared to the higher, 64.82% common equity ratio using market values. Exh. BG-10, p. 34; Exh. BG-11, p. E-14. The Modigliani and Miller theory shows that the cost of equity increases by 0.95% when the common equity ratio declines from 64.82% (using the market value of equity) to 49.76% (using the book value of equity). Exh. BG-10, p. 36; Exh. BG-11, pp. E-14-15.

Accordingly, taking into account this leverage modification, Mr. Moul determined the cost rate based on the DCF model according to the following formula:

$$D_1/P_0 \ + \ g \ + \ \textit{leverage modification} = \ k$$

$$4.90\% + 7.00\% + 0.95\% = 12.85\ \%$$

Exh. BG-10, p. 37.

Accordingly, the appropriate return on equity according to the DCF model is 12.85%. This result should be accorded significant weight, given the Department's recent recognition of the value of the DCF model in Fitchburg Gas & Electric Company, D.T.E. 99-118 (2001), p. 88.

### D. The Attorney General's Arguments

The Attorney General argues that Mr. Moul's DCF analysis is flawed and that the model instead produces a DCF return of 9.84%. AG In. Br., pp. 70-74. As shown below, it is the Attorney General's analysis that is flawed and that the Department should reject.

#### 1. Introduction

As an initial matter, the Attorney General has incorrectly set forth the DCF model. The Attorney General's expression of the DCF model should be: $k = D_1/P_0 + g$, in order to conform to his definition of dividends per share paid in the next period. See AG In. Br., p. 70.

### 2. <u>The Dividend Yield</u>

The Attorney General has calculated an unadjusted dividend yield of 4.72%. AG In. Br., p. 71. The Company does not specifically object to the Attorney General's proposal to use an unadjusted dividend yield of 4.72% for this case. It should be noted that this dividend yield is the same value that Mr. Moul initially employed in his direct testimony. See Exh. BG-10, p. 30. This circumstance shows that there has been no decline in the cost of equity since the Company filed its case.

It is also worthy of note that the more recent dividend yields show a trend toward a higher cost of equity. AG-RR-10 shows that for the most recent three months, the average dividend yield was 4.86% and the dividend yield in September 2001 was 4.92%. Hence, a 4.72% dividend yield provides a conservative measure of the cost of equity for the Company in this case.

Of course, as the Attorney General himself recognizes, that dividend yield must be adjusted upward to reflect "the dividend per share paid in the next period." AG In. Br., p. 70. It was for this reason that Mr. Moul adjusted the dividend yield upward, to 4.90%. See Exh. BG-10, p. 30; Exh. BG-11, App. E. There is no double counting in this regard because the DCF model which is applied in this case represents the periodic, or discrete form of the model given that public utilities pay dividends once every 91 days.

### 3. <u>Growth Rate</u>

The Attorney General commits a series of fundamental errors in calculating the DCF growth rate.

First, the Attorney General misrepresents the growth rate values shown in the Table presented on page 72 of his brief. In particular, the Attorney General ignores the 4.18%

historical Zacks earnings per share growth rate. In addition, the Attorney General ignores the cash flow per share measures of growth. Those historical values are 4.86% for 5 years and 4.05% for 10 years and the forecast values are 8.39%.

Second, the Attorney General cannot seriously argue that historical growth can be given any weight because those values are contaminated by negative growth rates. These provide no guide for the future. See Exh. BG-10, pp. 31-32.

Third, any comparison of historical growth rates since the Company's last case in D.P.U. 92-210 is not meaningful. The proxy group in the Company's last case consisted of Colonial Gas, Connecticut Energy, Connecticut Natural Gas, EnergyNorth, Essex County Gas, and Providence Energy. See Berkshire, D.P.U. 92-210, p. 122 n. 68. None of these companies are included in the Barometer Group in this case because all of those companies have been acquired by other companies and their stock is no longer traded.

Fourth, Mr. Moul more than adequately supported his 7% growth rate in his DCF model; indeed, the updates cited by the Attorney General further buttress this selection. As explained by Mr. Moul, see Exh. BG-10, p. 33 and Exh. BG-11, p. E-10, dividend per share growth forecasts do not represent the proper focus of growth in the DCF model when the dividend payout ratio is expected to decline. In the case of the Barometer Group, the dividend payout will decline in the future. See Exh. BG-10, p. 33. Moreover, the DCF model assumes no change in the price-earnings multiple, and as such the forecast growth in earnings per share must be emphasized.

As to the importance of forecasts of earnings per share growth, Professor Myron Gordon, who popularized the use of DCF in rate cases, determined that five-year analysts' growth forecasts represent the best measure of growth in the DCF model. Tr. 5, pp. 659-60. In that connection, AG-RR-10 shows that the forecasts of earnings per share growth are:

| | |
|---|---|
| IBES | 7.00% |
| Zacks | 7.34% |
| First Call | 7.03% |
| Market Guide | 7.17% |
| Value Line | 9.15% |

All of these growth rates equal or exceed the 7.00% growth rate used by Mr. Moul in this case. Indeed, the average of these growth rates is 7.54%, the median is 7.17%, and the midpoint of the high and low is 8.08%. These growth rates adequately, albeit with a conservative slant, support an investor expected growth rate of 7.00%.

Hence, the Attorney General is demonstrably wrong in arguing that Mr. Moul has used the highest available estimates. See AG In. Br., p. 72. Moreover, the forecasts of cash flow per share growth of 8.39% and growth from retained earnings of 7.20% show that Mr. Moul's 7.00% growth rate is not the highest available estimate. AG-RR-10, Sched. 9 (Update).

As to the argument that a 5.5% long-run growth in the economy should be considered for the growth rate, see AG In. Br., p. 73, the Attorney General's argument is completely misplaced. As Mr. Moul indicated in re-direct examination, Gross Domestic Product, or "GDP," growth may represent a plausible measure of revenue growth, but it is not a measure of earnings growth for a company. Tr. 5, pp. 658-59. This proposition finds further support in Exhibit AG-7, which clearly shows that the Blue Chip forecasts higher growth in corporate profits than GDP.

It must be recognized that the GDP has "product side" and "income side" components. The product side of the GDP is comprised of: (i) personal consumption expenditures; (ii) gross private domestic investment; (iii) net exports of goods and services; and (iv) government consumption expenditures and gross investment. On the income side, the components are: (i) compensation of employees; (ii) proprietors' income; (iii) rental income; (iv) corporate profits; and (v) net interest, all of which comprise National Income. To National Income is added business transfer payments, indirect business taxes, consumption of fixed capital, net receipts/payment to the rest of the world, and statistical discrepancy. The result then equals GDP.

If the "product side" (i.e., demand components) are to be used in a long-term growth analysis, then the GDP growth is a representation of revenue growth for a company, not earnings growth. Indeed, the Company's price cap proposal uses the GDP-PI, which is derived from the "product side," as a revenue adjustment mechanism, not an earnings adjustment factor. It is well known, however, that revenue growth does not necessarily equal earnings growth. The earnings growth rates for companies will be substantially affected by changes in operating expenses and capital costs. There is no basis to assume that the same growth rate would apply to revenues and all components of the cost of service. Hence, from an earnings growth perspective, growth in corporate profits taken from the National Income accounts would correctly reflect long-term growth.

The Attorney General is also wrong to propose that a collection of historical growth rates should somehow be averaged with the forecasts to arrive at a DCF growth rate. <u>See</u> AG In. Br., pp. 71-73. The forecasts provided in AG-RR-10 show that, when excluding dividends from consideration, they adequately support a 7.00% growth rate, <u>i.e.</u>, the values are 7.00%, 7.34%, 7.03%, 7.17%, 9.15%, 6.83%, 8.39% and 7.20%. The relatively tight cluster of these values show that 7.00% is eminently reasonable.

### 4. DCF Return

The DCF return, when corrected for the Attorney General's erroneous reference to a 5.0% growth rate, would provide an equity return of:

| | Growth Rate at 7.0% |
|---|---|
| Current Dividend Yield | 4.72% |
| DCF Dividend Yield | 4.89% |
| Growth Rate | 7.00 |
| DCF Cost of Common Equity | 11.89 |

This DCF return still, however, lacks the required adjustment in the return for application to a book value capital structure. As Mr. Moul explained, see Exh. BG-10, pp. 34-37, an additional return is necessary to reflect the change in financial risk associated with the return related to book value as compared to market value. This translates into a return on equity of 12.84% (11.89% + 0.95% = 12.84%) when the DCF cost rate is applied to book value. Id.

### iii. Risk Premium Analysis

#### A. Description

Under the Risk Premium, or "RP," approach, the cost of equity capital is determined by reference to corporate bond yields plus an additional premium to account for the fact that common equity is exposed to greater risk than is debt capital. Exh. BG-10, p. 38. While the cost rate of senior capital is known with a high degree of certainty because payment for the use thereof is a contractual obligation, the cost of equity is not fixed but instead varies with investor perception of the risk associated with common stock. Exh. BG-11, App. G, p. G-1. The RP approach recognizes the required compensation for the more risky common equity over the less risky secured debt position of a lender. Id., pp. G-1-2. Accordingly, the equity return to an investor must exceed a company's borrowing rate by a meaningful margin. Mr. Moul sought to accurately reflect this risk rate differential.

### B. Determination of Prospective Debt Cost

In determining the long-term public utility debt cost rate, Mr. Moul began by establishing a 7.50% yield as a reasonable estimate of the prospective long-term debt cost for an A rated public utility bond. Exh. BG-10, p. 38. Mr. Moul did so in part by reference to the historical yields for long-term public utility debt, as set forth in the graph appearing at page 1 of Schedule 10 to Mr. Moul's pre-filed testimony. Exh. BG-10, p. 38; Exh. BG-12, p. 16. Mr. Moul noted that, as of the time he prepared his pre-filed testimony, the average monthly yield on Moody's A rated index of public utility bonds for the twelve months ended March 2001 was 8.11%.[89] Exh. BG-10, p. 38; Exh. BG-12, p. 17 (Sched. 10, p. 1). For the six- and three-month period ending March 2001, the yields were 7.89% and 7.74%, respectively. Id. Mr. Moul noted that there generally had been a downward trend in the public utility bond yields beginning in the second half of 2000. Id. at 16 (Sched. 10, p. 1); see also Exh. BG-11, pp. F-6-8.[90]

Mr. Moul then determined the forecast yields on A rated public utility debt by using the Blue Chip Financial Forecasts ("Blue Chip") along with the spread in yields between Treasury securities and public utility bonds. Exh. BG-10, p. 38. As Mr. Moul explained, all interest rates

---

[89] As updated pursuant to a record request, the average monthly yield on Moody's A rated index of public utility bonds for the twelve months ended September 2001 was 7.85%. See AG-RR-10, Sched. 10 (Update), p. 1.

[90] The figures for the period ended March 2001 were close to those for the six- and three-month periods ending September 2001: 7.82% and 7.71%, respectively. See AG-RR-10, Sched. 10, p.

track to some degree to the benchmark yields that the market establishes for Treasury securities. Exh. BG-11, p. F-7. Public utility bond yields generally reflect the underlying Treasury yield associated with a given maturity plus a spread to reflect to specific credit quality of the public utility that issued the security. Id. Because Blue Chip ceased publishing forecasts on yields on A rated public utilities in 1999, Mr. Moul combined the forecast yields on thirty-year Treasury bonds published on April 1, 2001 with a yield spread of 2.25% to determine the long-term debt cost rate for an A rated public utility bond. Exh. BG-10, p. 39. As Mr. Moul demonstrated, this 2.25% spread is appropriate, given the relationship over time between yields on A rated public utility bonds and thirty-year Treasury bonds, which reveals a spread of 1.46% in 1998, a spread of 1.75% in 1999, and a spread of 2.30% in 2000. Exh. BG-11, p. F-8; Exh. BG-12, pp. 18-19 (Sched. 10, pp. 3-4).

The forecast yields on thirty-year Treasury bonds ranged from a low of 5.2% for the second quarter of 2001 to a high of 5.5% for the third quarter of 2002. Exh. BG-10, p. 39. Combining these forecasts with the 2.25% spread results in forecast yields on A rated public utility bonds of between 7.45% (for the second quarter 2001) and 7.75% (for the third quarter 2002). Id. Accordingly, based on these forecasts, as well as the historical long-term interest rates, Mr. Moul appropriately determined a 7.50% yield on A rated public utility bonds to be reasonable. Id.

### C. Determination of Equity Risk Premium

Mr. Moul calculated the equity risk premium by comparing the market returns on utility stocks with the market returns on utility bonds. Exh. BG-10, p. 39. Mr. Moul used the S&P Public Utility index to determine market returns for utility stocks. Id. The S&P Public Utility

---

1.

index is a subset of the S&P Composite index and was chosen because it represents electric and gas companies and hence is more closely aligned with the gas distribution industry. Exh. BG-10, pp. 39-40. Using the equity premiums derived for the S&P Utilities, Mr. Moul then determined the equity risk premium for the Barometer Group. Exh. BG-10, p. 40.

First, to determine the equity risk premium for the S&P Public Utilities, Mr. Moul analyzed the results for the group by averaging (i) the midpoint of the range shown by the geometric mean and median, and (ii) the arithmetic mean. Exh. BG-10, p. 40. The results, as set forth at page 2 of Schedule 11 to Mr. Moul's pre-filed testimony, are 5.65% for the period 1928-2000; 6.77% for the period 1952-2000; 6.53% for the period 1974-2000; and 6.89% for the period 1979-2000. Exh. BG-10, p. 40; Exh. BG-12, p. 21 (Sched. 11, p. 2). As Mr. Moul explained, he chose the shorter periods in order to provide a risk premium that reflects present investment fundamentals and to remove some more distant data from the analysis. Exh. BG-10, p. 40. Moreover, the initial year of each period was selected by reference to certain events that are fixed in history and hence cannot be manipulated (e.g., 1952 as the year following the Treasury-Federal Reserve Accord, and 1974 as the year following the 1973 Arab Oil Embargo). Exh. BG-10, p. 41; Exh. BG-11, p. G-6. In other words, the periods were chosen by reference to immutable events rather than to produce a desired result. Id.

As the values recited above reveal, the lowest indicated risk premium was for the period 1928-2000, while the highest was for the 1979-2000 period. Exh. BG-10, p. 41. Accordingly, Mr. Moul took the average of the risk premiums indicated for the middle two periods – 1952-2000 and 1974-2000 – or 6.65%, as a reasonable risk premium for the S&P Public Utilities in this proceeding. Id.

Mr. Moul then considered differences in risk characteristics in applying this result for the S&P Public Utilities to the Barometer Group. Exh. BG-10, pp. 41-42. Owing to differences in such fundamentals as size, market ratios, common equity ratio, return on book equity, operating ratios, coverage, quality of earnings, internally generated funds, and betas, Mr. Moul determined a reasonable risk premium for the Barometer Group to be 5.50%, or approximately 83% of that for the S&P Public Utilities.

### D. <u>Determination of Common Equity Cost Rate</u>

Given the determination of a 7.50% prospective yield for long-term public utility debt and a 5.50% common equity risk premium for the Barometer Group, Mr. Moul calculated the cost of equity according to the RP approach to be 13.00%.

### E. <u>Attorney General's Arguments</u>

The Attorney General argues both that Mr. Moul's RP analysis is simply the CAPM in disguise and that it overstates the amount of company-specific risk. AG In. Br., pp. 79-80. The Attorney General is wrong on both counts.

First, the RP analysis is not the same as the CAPM. Mr. Moul's RP analysis uses corporate bond yields as a foundation for the return and is not limited to measuring just systematic risk. Moreover, it is directed specifically to the return required by a utility because it is based on the returns for the S&P Public Utility Index, and not a broader, market-wide index such as the S&P 500 Composite, which is used in the CAPM.

Second, Mr. Moul's RP analysis does not overstate the company-specific risk. To the contrary, because the parameters were objectively measured and informed judgment was limited to tailoring the results to the risk of the Barometer Group, <u>see</u> Exh. BG-10, pp. 41-42, Mr. Moul's RP analysis provides a valid, although conservative, measure of the Company's risk.

### iv. Capital Asset Pricing Model

#### A. The CAPM Corroborates Berkshire's Proposed Cost of Equity

As noted previously, although Mr. Moul placed primary emphasis on the DCF and RP models for measuring the cost of equity, he also utilized other models, including the CAPM, as a supplement to these methodologies. Mr. Moul cautioned that the CAPM contains a number of assumptions and thus should be used in conjunction with other methods. Exh. BG-10, pp. 42-43.[91]

In determining the cost of equity through the CAPM, Mr. Moul calculated three factors: (1) the risk-free rate of return; (2) the beta measure of systematic risk; and (3) the market risk premium, derived from the total return on the market of equities reduced by the risk-free rate of return. Exh. BG-10, p. 43. The CAPM accounts for differences in systematic risk between an individual firm and the entire market of equities. Id. Thus, to calculate the CAPM one must use firms with traded stocks, and in this regard Mr. Moul employed the Barometer Group. Id.

In conducting the CAPM analysis, Mr. Moul initially considered the Value Line betas, the average of which is .59 for the Barometer Group. Exh. BG-10, p. 44; Exh. BG-12, p. 22 (Sched. 12, p. 1). This figure must, however, be adjusted to reflect the financial risk associated with a capital structure measured at book value rather than market value. Id. In order to accomplish this, Mr. Moul first unleveraged the Value Line betas, and then releveraged them for the common equity using book values, according to the following formula:

$$ßl = ßu\ [1 + (1 - t)\ D/E + P/E$$

[91] In particular, the RP approach considers industry- and company-specific factors not taken into account with the CAPM, and thus it is more comprehensive. Exh. BG-10, p. 43. Moreover, the RP model better measures the cost of equity because it is based on corporate bond yields rather than Treasury bonds. Id.

where ß*l* is the leveraged beta, ß*u* is the unleveraged beta, *t* is income tax, *D* is debt ratio, *P* is preferred stock, and *E* is common equity ratio. Exh. BG-10, p. 44. Because the Value Line betas were calculated using the market price of stock, they are related to the market value capitalization, which, as shown previously with respect to the leverage adjustment for the DCF model, contains a 64.82% common equity ratio. Id. Using his calculation of the unleveraged beta, Mr. Moul then determined the leveraged beta for the Barometer Group associated with its book value capital structure, and calculated the leveraged beta to be .72. Id.

Mr. Moul next determined the risk-free rate of return by employing the yields on long-term thirty-year Treasury bonds[92] using both historical and forecast data. Exh. BG-10, p. 45; Exh. BG-11, p. F-9. With respect to historical yields, Mr. Moul presented in his pre-filed testimony the 5.73% average yield for thirty-year Treasury bonds for the twelve months ended March 2001, the 5.57% average yield for the six months so ending, and the 5.44% average yield for the three months so ending. Exh. BG-10, p. 45; Exh. BG-12, p. 24 (Sched. 12, p. 3). With respect to forecast data, the forecasts published by Blue Chip on April 1, 2001 provided that yields on thirty-year Treasury bonds were expected to be in the range of 5.2% to 5.5% during the ensuing six quarters. Exh. BG-10, p. 45; Exh. BG-12, p. 25 (Sched. 12, p. 4). Accordingly, Mr. Moul determined that a 5.25% risk-free rate of return was appropriate for CAPM purposes. Exh. BG-10, p. 45. The updated information provided pursuant to a record request made during Mr.

[92] Mr. Moul explained that, by contrast, very short-term yields on Treasury bills should be avoided in measuring the risk-free rate of return. Exh. BG-11, App. F, p. F-9. First, rates should be set based on financial conditions as they will exist during the effective period of the proposed rates. Id. Second, short-term bill yields are more volatile than are long-term yields. Id. Finally, empirical analysis has shown short-term Treasury yields to be inadequate for the CAPM. Id.

Moul's testimony before the Department continues to support this conclusion: the historical average monthly yield for the twelve months ending September 2001 was 5.59%; for the six months so ending, 5.61%; and for the three months so ending, 5.52%. See AG-RR-10, Sched. 12 (Update), p. 3. Similarly, the Blue Chip forecasts of the thirty-year Treasury bond yields for the six quarters commencing with the fourth quarter 2001 range from 5.3% to 5.9%. Id., p. 4.

Finally, Mr. Moul developed the market premium by taking the average of the historical market performance of 7.3% and the Value Line forecasts of 13.38%, i.e., 10.34%. Exh. BG-10, p. 45.

Applying the foregoing risk-free rate of return of 5.25%, the leverage adjusted beta of .72 for the Barometer Group, and the market premium of 10.34%, Mr. Moul determined the CAPM result to be 12.69%, as follows:

$$Rf \; + \; ß \; (Rm\text{-}Rf) \; = \; k$$

$$5.25\% \; + \; .72 \; (10.34\%) \; = \; 12.69\%$$

As Mr. Moul explained, however, this result must be adjusted for the size of the firm in question. Exh. BG-10, p. 46. Indeed, Mr. Moul cited several sources for the proposition that the size of a firm affects stock returns, and, in particular, cited an October 15, 1995 article appearing in Public Utility Fortnightly in which the author, Michael Annin, demonstrated that the CAPM could understate the cost of equity significantly depending on a firm's size. Exh. BG-10, p. 46. Similarly, the SBBI Yearbook demonstrated that returns for stocks in lower deciles exceeded the returns indicated by the application of the simple CAPM. Id. Accordingly, because the average market capitalization for the Barometer Group places it in the fifth decile according to the size of companies traded on the New York Stock Exchange, Mr. Moul applied a size premium of 0.58% in order to avoid understating the required return under the CAPM. Exh. BG-10, p. 47.

Thus, increasing the CAPM result of 12.69% by the 0.58% size premium results in a 13.27% cost of equity. Since Berkshire is even smaller than Mr. Moul's Barometer Group, the Company's cost of equity would be even greater than that indicated for the Barometer Group.

### B. The Attorney General's Arguments

The Attorney General argues the Department should reject Mr. Moul's CAPM analysis outright, both because, according to the Attorney General, the CAPM contains unrealistic assumptions, and because Mr. Moul's application of it is flawed. See AG In. Br., pp. 74-78. The Attorney General's complaints should be rejected for three reasons.

First, as discussed above, Mr. Moul has placed primary emphasis on the DCF and RP analyses. He employed the CAPM as a means of corroborating the results of his other analyses. The Department, too, should use Mr. Moul's CAPM result for that purpose.

Second, with respect to the Attorney General's argument that the CAPM employs unrealistic assumptions, the same can be said of all measures of the cost of equity, each of which contains restrictive assumptions that may not conform to real-world situations. See Exh. BG-10, p. 27. That is precisely why it is important to corroborate and verify results through the use of a robust number of models. Id.

Third, the Attorney General argues that Mr. Moul's application of the CAPM in this case is somehow flawed due to his use of the yield on 30-year Treasury bonds as the measure of the risk-free rate of return. See AG In. Br., pp. 77-78. As Mr. Moul explained in his pre-filed testimony, however, use of the yields on shorter (e.g., five-year or thirty-day) Treasury obligations would be incorrect in the CAPM. See Exh. BG-11, p. F-9.

Moreover, the Attorney General's CAPM calculations suffer from serious inconsistencies. For example, in his first CAPM calculation, the implied market return is 12.86% (4.66% + 8.20%), yet in the second CAPM calculation, the implied market return falls to 11.60% (2.50% + 9.10%). There is no factual basis for such a dramatic change in the market return between these calculations. Indeed, the Company's evidence shows that the total market return is 18.63%. See Exh. BG-11, p. H-4.

In addition, the Attorney General provides no support either for the 2.50% yield on thirty-day Treasury obligations or for his 9.1% "Equity Risk Premium" (which appears to be the Attorney General's label for market premium). With no apparent support in the record for these data, the Department should ignore the Attorney General's CAPM calculation.

#### v. Comparable Earnings Approach

##### A. The CE Approach Also Corroborates the Company's Proposed Cost of Equity in this Case

As an additional supplement to the DCF and RP methods, Mr. Moul utilized the CE approach. This method analyzes returns experienced by non-regulated firms in order to identify the appropriate return on equity for a public utility. Exh. BG-10, p. 47. As Mr. Moul explained, this approach is necessary because regulated firms must compete with non-regulated firms in the capital markets, and it is thus appropriate to look to the returns realized by companies subject to the competitive forces of the marketplace. Id.

In selecting companies for purposes of making the earnings analysis, Mr. Moul opted to set parameters reflecting similar risk traits for the public utilities, without regard to business lines. Exh. BG-10, p. 48. In order to avoid the circular reasoning implicit in using the achieved earnings/book ratios of other regulated firms, however, Mr. Moul excluded such firms from the pool of non-regulated companies to use for the comparison. Id. As noted previously, regulation is intended to produce the same result as competitively-established prices, and thus returns of non-regulated firms with comparable risks are a useful proxy for the fair rate of return of a regulated firm. Exh. BG-10, pp. 48-49.

To implement the CE approach in this case, Mr. Moul selected non-regulated companies from the Value Line Investment Survey for Windows based on six categories of comparability designed to reflect the risk of the Barometer Group: Timeliness Rank, Safety Ranking, Financial Strength, Price Stability Index, Value Line betas, and Technical Rank. Exh. BG-10, p. 49; Exh. BG-11, App. I, pp. I-1-3. The thirty-seven companies thus selected are set forth on page 1 of Schedule 13 to Mr. Moul's pre-filed testimony. Exh. BG-12, p. 28 (Sched. 13, p. 1).[93]

In performing the analysis, Mr. Moul used both historical, realized returns and forecast returns. Exh. BG-10, p. 50. In particular, Mr. Moul examined a ten-year period – five historical years and five projected years – in an effort to capture conditions over an entire business cycle. Id.

Because the nature of the analysis relates to book value, the CE approach does not reflect the potential misinformation inherent in market models when prices and book values diverge significantly. Id. Accordingly, Mr. Moul determined the historical rate of return on book common equity to be 18.9% using the average measure of central tendency, and 15.0% using the median value. Id. at 50-51; Exh. BG-12, p. 29 (Sched. 13, p. 2). The forecast rates of return as

[93] Mr. Moul explained that he chose to rely on Value Line data because is provides a comprehensive basis for evaluating the risks of comparable firms. Exh. BG-10, p. 50. Given that Value Line computed the rates of return on year-end rather than average book value, the results were marginally lower than had average book values been used, but the Value Line results nonetheless are appropriate to use for the CE analysis because they are the figures investors consider when purchasing these stocks. Id.

published by Value Line are 19.3% using the average measure of central tendency and 16.0% using the median value. Id. Taking the average of the historical and forecast median rates results in a 15.50% rate of return. Id.

### B. The Attorney General's Arguments

The Attorney General argues that Mr. Moul's CE approach is unreliable and should be rejected. AG In. Br., p. 79. Again, Mr. Moul did not specifically incorporate the results of the CE into his recommended cost of equity for the Company in this case. Rather, the CE result was used as further evidence corroborating that the proposed 12.50% rate of return on common equity for the Company is conservative.

### 6. The Attorney General's Argument Regarding Risk Adjustments

The Attorney General's final assault on Mr. Moul's careful and well-supported analysis in this case is his attack on certain risk adjustments that Mr. Moul employed. See AG In. Br., pp. 80-82. The Attorney General specifically adverts to the market to book ratio adjustment employed in the DCF, and the leveraging and unleveraging of the betas in the DCF, both of which adjustments are entirely appropriate, for the reasons set forth above and in Mr. Moul's testimony. Id., p. 80.

It is worth responding here, however, to the Attorney General's suggestion that Mr. Moul has "ignored what is probabl[y] the most important single factor that investors consider when investing in the companies in the [Barometer Group] – the non-utility businesses that the companies are involved in that increase the risk for these companies." Id., pp. 80-81. The implication appears to be that any return calculated from a proxy group containing companies that are not solely regulated utilities will somehow produce a return that is higher than necessary for the utility. The Attorney General makes no attempt to quantify the magnitude of this alleged disparity and, indeed, there is no basis for doing so. As Mr. Moul explained, however, the diversification benefits associated with a portfolio of various business lines will ensure that the Barometer Group's cost of equity is not higher than necessary for a gas distribution utility. See Tr. 5, p. 655.

Moreover, as shown in DTE-RR-13, the gas distribution revenues represent 69% ($906.386 million ÷ $1,319.833 million) of total operating revenues for these companies, which makes them primarily regulated gas utilities in the eyes of investors.[94]

Accordingly, the Attorney General's premise that the members of the Barometer Group possess more risk than the Company not only is unsupported but also is refuted by the evidence in the record.

**7. Conclusion**

In order to arrive at the appropriate return on common equity, Mr. Moul primarily relied on the results of the DCF and RP methods described above, verifying these results through the CAPM and CE approaches. To recount, the appropriate return for the Barometer Group as derived through the DCF method is 12.85%; through the RP approach, 13.00%; through the CAPM, 13.27%; and through the CE approach, 15.50%. Based on this careful analysis, Mr. Moul's recommendation that Berkshire's cost of equity should be set at 12.50% is not only amply supported by the record but is extremely conservative. Indeed, given Mr. Moul's demonstration that the Company's overall risk strongly suggests its cost of equity to be significantly greater than the measures indicated for the Barometer Group, the equity return of

[94] See note 80, supra (Value Line classifies each of these companies in the Natural Gas Distribution industry.)

12.50% represents the absolute minimum that should be established for the Company. BG-10, p. 5.

Accordingly, the Department should approve the capital structure and rate of return proposed by the Company.